1: Metraux E-5 (1934-1935) 1940
OY2 Easter Islanders OY2

GEOGRAPHY

Few places on the earth are more isolated than Easter Island, lying 1,600 miles from Mangareva and about 1,100 miles from Pitcairn, the nearest inhabited islands, and about 2,230 miles from the South American coast. It is the easternmost Polynesian island. Its exact position is 27° 08′ 6″ south latitude and 190° 25′ 54″ west longitude (fig. 1, *a*). The island is triangular in shape with a total area of about 55 square miles. It is exactly 9 miles long from southwest to southeast, 9 2/3 miles from west-northwest to east-southeast, and 13 miles from northeast to southwest.

Easter Island is a typical volcanic island, formed by a series of eruptions originating on the floor of the ocean. Recent petrographic analyses show that no rocks of continental type occur in the structure of the island (11, p. 1609).[1] The lapilli in the ashes of Rano-raraku are exclusively volcanic; no traces of metamorphic rock have been detected (50, p. 41). All craters are extinct and there is no evidence of recent action.

Soundings have revealed depths of 1,145 fathoms at 10 miles from the coast and 1,770 fathoms at 20 miles, thus establishing the existence of a submerged platform around the island "of unknown extent which attains depths generally of 30 to 40 fathoms a mile from the shore" (50, p. 35).

The triangular shape of the island is due to the position of three large volcanoes at the angles—Te Revaka (Rano-aroi) at the northwest point, Rano-kao at the southwest point, and Puakatiki at the eastern point (fig. 1). The highest summit is Te Revaka, generally called Rano-aroi after a small crater lake (*rano*) on its southeastern slope. It is about 1,730 feet above sea level and forms part of the bulkiest volcanic mass of the island. This complex area is composed of a cluster of cones and craters extending in several directions. The water contained in the Rano-aroi constitutes a shallow marsh, overgrown with bulrushes, which overflows into a gorge and a partly underground channel (11, p. 1594). On the northern and western sides of this land mass, wave erosion has developed precipitous cliffs 500 to 600 feet high.

Rano-kao is about 1,050 feet high. Its crater, filled by a fresh-water lake nearly a mile wide and 390 feet above sea level, is the most important reservoir on the island, though it is thickly carpeted with peat, leaving but small openings of free water. The lake, surrounded by steep cliffs, is accessible at only a few places. The shores of the lake, sheltered and humid, support abundant vegetation. Most of the trees growing in the interior of the crater are of recent introduction but in ancient time the vegetation was also more luxuriant here than in any other spot on the island. Here too, bulrushes and reeds are plentiful. The southern side of Rano-kao has been eroded by wave action to form a vertical

[1] Numbers in parentheses refer to Bibliography, p. 421.

102
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FIGURE 1.—Map of Easter Island with inset showing relative position in Polynesia.

1: Metraux E-5 (1934-1935) 1940
OY2 Easter Islanders OY2

133

cliff 1,000 feet high. At Orongo it has been reduced to such a thin wall that it will eventually crumble, giving the sea access to the interior of the crater.

The eastern headland of Poike with its summit Puakatiki, 1,250 feet above sea level, was isolated in the geologic past. It was connected with the rest of the island when it was elevated (11, p. 1592). Wave erosion has considerably reduced its former symmetry.

Except on the seaward side where they have been undercut by the waves, the volcanic masses, composed chiefly of ash and tuff, have been little modified by erosion. They retain their original rounded form and their gentle, smooth slopes which are entirely covered with grass.

The low-lying coastal plains between the three volcanoes have been formed by lava flows or by a succession of uplifts. This region includes part of the western coast between Te Revaka and Rano-kao, the northern coast from Anakena to Mahatua, and the central tract of the island including the southern coast with the exception of the peninsula of Poike and the southwestern promontory. There are also some narrow, level strips produced by lava flows along the northern slopes of Te Revaka, particularly a small plain called Hangoteo on the bottom of an ancient, partially destroyed crater.

From the plains rise parasitic ash craters which radiate outward from Te Revaka. The famous Rano-raraku (quarry of the images, pl. 1, *A*) is the most easterly of a line of five volcanoes beginning at Te Revaka. Like Rano-kao, Rano-raraku was eroded by the sea and contains a lake surrounded by a belt of bulrushes. To the same system of craters belongs Punapau, a low cone of pumice in whose crater the natives quarried the big red cylinders placed on the heads of the statues. Mount Orito is in part composed of black rhyolitic obsidian from which the natives chipped weapons and implements.

The hills on which Gonzalez planted crosses in 1770 are three cones on the north slope of Poike. They are called Maunga Vai-heva, Maunga Teatea and Maunga Parehe. The last of these volcanoes has been destroyed by wave erosion.

The basaltic coast along the low portions of the island is jagged and in some places fringed by an escarpment from 50 to 100 feet high. Sandy beaches are few. The largest is at Anakena Bay (200 feet wide) and other small ones are at Ovahe, La Pérouse, and Vaihu. There are no sheltered harbors large enough for modern ships. Off the coast are small isolated rocks called *motu*. The two largest are Motu-nui and Motu-iti, real islets haunted by thousands of sea birds. Off the high bluffs of Poike on the south coast rises the towerlike islet of Marotiri.

Outcropping rocks, large blocks of lava, and sharp-edged stones of all sizes are strewn over the plains and the northern slopes of Rano-aroi. These are not

1: Metraux E-5 (1934-1935) 1940
OY2 Easter Islanders OY2

●133 the results of recent eruptions but of the weathering of the lava. The soil is not uniformly distributed. On the plains it is often shallow and stony, but where it is thicker it is fertile and suitable for intensive cultivation (208, vol. 2, p. 488). At Poike the soil is deepest though this region does not seem to have been tilled in former days.

It has been stated repeatedly that the surface of Easter Island might have been larger within human time. However, this does not seem to be true. The line of burial platforms follows the shore and, though wave erosion is certainly rapid along the ashy volcano slopes, only two monuments have been attacked by the sea. Ahu-rikiriki, on the southern slopes of Rano-kao has fallen, and the same fate awaits ahu Ohau at the northwestern point. At the time of my visit (1934), one of its wings had been cut away from the main building by a deep fissure and could not be approached without danger.

The contrast between Easter Island and most other high Polynesian islands is striking. It has no rugged peaks, no ridges, no deep valleys, no ravines, only a monotonous succession of cones and rounded capes above the basaltic plains or the high cliffs of the coast. On all sides are smooth, undulating curves.

Climate

132 Easter Island belongs to the tropical zone, although its barrenness is more suggestive of Scandinavian scenery than of tropical landscape. The island lies near the southern limit of the southeast trade winds which blow constantly in summer. In winter, northwest winds predominate and southwest winds are as common as those of the southeast. The average temperature, as recorded over a period of two years (1912-1913), ranges between 73.4 and 62.6 degrees Fahrenheit. The climate is uniform and very mild. Even the hottest days are made agreeable by constantly blowing winds. However, the slightest change in temperature is noticeable and the nights seem quite cold, even to the islanders. The cool temperature of the sea is one of the factors which has prevented the formation of a coral reef, but, as pieces of coral are often cast ashore by wave action, there must be some growth along the coast.

The rainfall averages about 50 inches a year. Rain is heavy in the winter months, from March to October, and showers are frequent in both spring and summer. Sometimes such showers develop into downpours of great force. Thunder and lightning storms are rare but not entirely unknown. Constant rain and mist for two weeks or more are common in winter. On the other hand, natives recall short droughts, which probably did not last long enough to harm the vegetation. The abundance and frequent violence of the rains have not affected the general contours of the island, due to the fact that water disappears beneath the surface rapidly, leaving the ground dry.

1: Metraux E-5 (1934-1935) 1940
OY2 Easter Islanders OY2

Water Sources

There are no rivers on Easter Island. The little ravines (*ava*) which appear on the north coast are clearly not due to erosion, but may be partly of constructional origin. Water runs in them only rarely and sporadically. The rain filters into the porous ground forming local water tables where it meets impermeable layers. The chief water bodies are only slightly above sea level and thin streamlets often flow toward the shore. Unfortunately the fresh water, especially during high tide, mixes with salt water and becomes decidedly brackish. At several places walls were built to protect the fresh water from being spoiled by the sea. At Tahai there is a kind of basin, separated from the sea by a wall, where fresh water mixes with salt water. Previously the natives drank that water and today the cattle are watered there. Captain Cook obtained water for his ship from such a spring (53, vol. 1, p. 289):

> The little [water] we took on board could not be made use of; it being only salt water which had filtrated through a stony bench, into a stone well. This the natives had made for the purpose, a little to the southward of the sandy beach often mentioned; and the water ebbed and flowed into it with the tide.

Along the shore, where the coast is low, natives dug reservoirs (*puna*) which impounded rain water and perhaps some fresh water springs. A deep ditch, between 2 and 3 meters deep, is dug near the shore. The seaward, lateral sides are perpendicular and lined with stones perfectly fitted (pl. 1, *C*). The landward side slopes at an angle of 45 degrees to the base of the opposite wall and is paved with boulders. After a rain the running water is led to the interior of the basin where, at the same time, water from the underground water body collects. A few of these reservoirs or springs still contain water, but most of them are filled with mud. According to my informant, there is always water in them even though it does not rain. Cook's reconnoitering party report (53, vol. 1, pp. 283-284) that the natives used these reservoirs not only for drinking but also for bathing.

Near Ovahe, at Vai-a-hoa, is a well which has been modified to form a modern water mill. The square pit is several meters deep; its smooth walls are lined with stones laid horizontally. In a few places there are springs, holes among the rocks into which water percolates. Ruins of ancient settlements are always thick around water holes. The most famous are the water pools near Ahu-te-peu, Puna-marengo, and Vai-tara-kai-ua. The water at Vai-tara-kai-ua is in a deep hole which has been covered with big blocks of stones so that only a small, narrow passage remains, just wide enough for one person. Behind Anakena abundant water is found. On the Puakatiki, a hole in a cliff where water collects has been carved all around into the form of a big human face (Vai-a-heva). After a prolonged rain the water of Rano-aroi flows through a gap into another pool. This pool empties into a long, narrow fissure where water is

1: Metraux E-5 (1934-1935) 1940
OY2 Easter Islanders OY2

always found. I noticed on a few rocks near ancient settlements small rectangular depressions artificially carved. The natives explained them as tanks to collect rain water.

The water of the crater lakes (*rano*) has always been an inexhaustible reservoir but it is apparently too inaccessible to have been much used. Some early travelers report that the natives chewed sweet potatoes and sugar cane to quench their thirst when walking.

Today abundant water from the corrugated iron roofs is collected in tanks or barrels.

PLANT LIFE

Skottsberg (208, vol. 2, p. 489) writes that "there does not exist another island of the size of Easter and with such a fine climate where the native flora is so poor. Only about 30 species are considered to be indigenous." Despite the introduction of many new plants and trees, grass is still the only vegetation on most of the island. Only the crater of Rano-kao with its green belt and the farm of Mataveri are exceptions. The general appearance of the island has not changed much since its discovery; then shrubs, principally of *toro-miro*, sandalwood, *Triumfetta semitriloba*, and *Sapindus*, were seen in many places along the coast and were, perhaps, even more abundant in the interior. It is possible that when the first settlers landed on the island they found a kind of savanna forest "a park-like formation with scattered, stunted *Sophora* trees and grass cover" (208, vol. 2, p. 492). The flat, rocky plains were probably devoid of trees and the savanna confined to the hillsides.

The almost entire absence of trees impressed the ancient travelers more than any other feature. Aridity is still invoked as one of the most decisive arguments in support of the theory of some vast cataclysm which completely changed conditions on the island and reduced its inhabitants to utmost misery after a time of plenty during which their culture developed. Early voyagers, landing at various parts of the island and making hasty generalizations, differ greatly in descriptions of the fertility of the land. Roggeveen holds in high esteem its ability to be cultivated (186, pp. 9-10, 21):

> The reason why, at first, when at a farther distance off, we regarded the said Easter Island as being of sandy nature is that we mistook the parched up grass, and hay or other scorched and charred brushwood for a soil of that aride nature, because from its outward appearance it suggested no other idea than that of an extraordinarily sparse and meagre vegetation; and the discoverers had consequently bestowed upon it the term sandy.
>
> . . . Nor can the aforementioned land be termed sandy, because we found it not only not sandy but on the contrary exceedingly fruitful, producing bananas, potatoes, sugarcane of remarkable thickness, and many other kinds of the fruits of the earth, although destitute of large trees and domestic animals, except poultry. This place, as far as its rich soil and good climate are concerned, is such that it might be made into an earthly Paradise, if it were properly worked and cultivated; which is now only done in so far as the Inhabitants are obliged to for the maintenance of life.

1: Metraux E-5 (1934-1935) 1940
OY2 Easter Islanders OY2

101 103 The lack of a name for the island as a whole "was quite in accord with the islander's habit of mind to speckle his home with names changing every few feet and to leave the major divisions nameless" (51, p. 4).

EUROPEAN CONTACTS

175 [133] With no sheltered harbors along its coast and with winds which suddenly shift direction, Easter Island does not afford safe anchorage for any vessel, least of all for sailing ships. This unfavorable geographical feature combined with isolation, lack of resources, and the suspicious attitude of the natives is partly responsible for the enigmas presented by the island's culture. The early discoverers and seafarers were little inclined to stay long on an island considered dangerous for ships and men; information about the native culture was obtained hurriedly and is generally superficial or incomplete, notwithstanding the talent of observers like Cook, the two Forsters, La Pérouse, or Beechey and the enormous interest they took in the strange monuments they saw scattered everywhere. When the missionaries settled on the island, in the beginning of the second half of the eighteenth century, the old life had already disappeared.

175 609 The mysterious land, "500 leagues from Copiapo," sighted in 1687 by the buccaneer, Edward Davis, was probably not Easter Island but Mangareva. In his quest for the hypothetical land of Davis, Roggeveen came upon Easter Island on the fifth of April, 1722. The following day a native went on board the flagship, where he made a very favorable impression. He was cheerful, "lively in mien, as well as pleasing in speech and gesture" (18, vol. 1, p. 123). His behavior was observed with much curiosity (186, p. 8). And as the musicians played their instruments for him, "he began at once to caper and dance about" (18, vol. 1, p. 124). He was sent ashore with various small gifts.

Later a great many natives boarded the ships and showed (186, p. 11) "at that time their great cupidity for everything they saw; and were so daring that they took the seamen's hats and caps from off their heads, and sprang overboard with the spoil." Further attempts to pilfer were made when Roggeveen and a party of 137 men landed. The resulting confusion and the threatening appearance of the islanders, who picked up stones, frightened some of the crew, who fired a volley. Ten or twelve natives were killed and the others ran away. But, as no more harm was done them, the fugitives returned with friendly gestures and with no apparent resentment. They were ordered by a chief to bring to the foreigners presents of sugar cane, bananas, fowls, and yams. If Behrens (18, vol. 1, p. 128) is to be relied upon, they even bowed and knelt before the Dutchmen and brought them standards like those they presented to their *ariki*. Behrens (18, vol. 1, p. 134) says that the women proposed themselves quite openly and were offered to the sailors by

1: Metraux E-5 (1934-1935) 1940
OY2 Easter Islanders OY2

I was given two different versions of the cause of the struggle: first, that the Short-ears refused to build the ahus that the Long-ears were planning, and second that the Short-ears would not clear the island of the stones which covered it. Vives Solar (221, p. 118) says that the fight was caused by the refusal of the Short-ears to build an ahu for a Long-ear who died in Vai-mata. Routledge (194, p. 280) gives the following version:

> Now the Long Ears (*Hanau epe*) and Short Ears (*Hanau momoku*) lived together mixed up all over the land, but one of the Long Ears, Ko Ita by name, who lived at Orongo, had in his house the bodies of thirty boys, whom he had killed to eat. Among his victims were the seven sons of one man, Ko Pepi. Ko Pepi went mad, and ran round and round till he fell down, and his brothers took their *mataa* and killed the Long Ears at Vinapu and at Orongo. They were joined by the other Short Ears till the Long Ears took refuge in the eastern headland, across which they then dug a ditch and filled it with brushwood in order to make a fire in self-defence.

Although the proper names give her explanation an appearance of authenticity, I think that Routledge has not discovered the real and most ancient source of the conflict. The geography of the island leads me to think that the anger of the Long-ears was provoked by the refusal of the Short-ears to take away the stones of the island. The Long-ears, according to my version, were concentrated in the eastern headland of the island, called Poike. This region, formed by the ashy materials of the volcano Puakatiki, is not strewn with stones, and thus contrasts greatly with the rugged plains at its foot. The Long-ears probably wanted all the island to be as clean of stones as their own country.

The ditch dug by the Long-ears is still pointed out by the natives. It is a "gully running from north to south across the island, with the snout of the lava flow on one side and the much higher sea-cut cliffs on the other" (50, p. 33). At this place the formerly separate island of Poike was reached by the lava from Te Revaka. The ground suggests a partially filled ditch which inevitably aroused the curiosity of the natives who originated a tale accounting for this unusual formation.

Both Thomson (215) and Routledge (194) figure the ditch filled with brushwork as a defense system into which the Long-ears "arranged to drive their enemies, when the bush wood was to be set on fire and every man exterminated." This interpretation is possible, but there is no explanation as to why a fire should have been kindled in the ditch. My informant's version, in which he says that the ditch was an *umu* (earth oven) in which the Long-ears intended to cook the Short-ears, seems to me to be clear.

In Vives Solar's version and in mine, the woman who shows the Short-ears the way to reverse their position is essential; in Routledge's version, her intervention is entirely episodical. The Short-ears were drawn in array in front of the ditch and would not have passed if an old woman had not shown them the way around, allowing the Short-ears to turn the flanks of their

1: Metraux E-5 (1934-1935) 1940
OY2 Easter Islanders OY2

of crabs: *pikea-uri, pikea-naḫenahe, pikea-tutu-au, pikea-tura-moa, pikea-paki-maroa,* and *pikea-toetoe.*

Sea urchins (*hatuke*) are plentiful along the coast. Natives crush them between two stones and boil them. In olden days trepangs or bêche-de-mer (*pipiri*) were eaten after their skins had been rubbed off. A big Coelenterata (*otaki*) is said to have been eaten. I saw the natives eat another mollusk known as *takatore-pare.*

Islanders are still fond of small shellfish, *pipipipi-uriuri, pipi-vaka, pipi-ekaeka, pipi-nehenehe, pipi-momoko, ningoningo.* Shells of sea snails are found in great quantities near ancient settlements and in caves.

HOUSES

Easter Islanders lived in thatched houses, in semi-underground houses, or in caves. All their dwellings were uncomfortable; the low houses were overcrowded, the caves dark and wet. Such indifference to comfort is not astonishing when one remembers that the natives lived mostly out-of-doors and that the houses were shelters for the night or for rainy days only. Scarcity of wood is partly responsible for the crudeness of the huts, but nothing prevented the building of more stone houses of the Orongo type. Though today all the islanders have frame houses, they are small and crowded. A few modern houses are built of stone, but this type is becoming obsolete.

CAVES

COASTAL CAVES

The coasts of Easter Island, especially along the west and north, are perforated with caves (*ana*), which have been used by the islanders either as permanent dwellings or as shelters for the night during fishing expeditions. When they are overtaken by darkness far from their homes, the natives go to sleep in the nearest cave.

Thomson, Routledge, and I have excavated the ground of several coastal caves and found hooks, bone needles, and wrought bone fragments, indicating that those caves were once occupied by day and that fishermen used them as workshops. Some caves, especially that of Ovahe, seem to have been arranged for longer occupancy. The entrances are protected by stone walls, and inside are stone platforms on which to sleep. Some of these platforms are covered with a layer of straw—testimony that the natives still sleep there. The largest of these caves is Ana-havea on the south coast.

INLAND CAVES

The name *hare-kionga* designates inland caves or subterranean lava tubes, where defeated people are said to have taken refuge during wars. That this was the essential purpose of these strange dwellings we do not know, but the

1: Metraux E-5 (1934-1935) 1940
OY2 Easter Islanders OY2

CONCLUSIONS

174 The supposed mystery of Easter Island rests on the assumption that the culture of this speck of land was too elaborate to have been produced by the natives who lived on it when it was discovered by Europeans. In the opinion of many people, the monuments of this island are the expression of a refined and powerful civilization which was obliterated either by a natural disaster or by invasions. Those who hold that a cataclysm is responsible for the disappearance of this civilization believe that Easter Island is the remnant of a submerged continent or archipelago. Such views rest on mere speculation and not on observed facts.

174 133 When white men first landed on Easter Island, its surface and the outline of its coast were about as they are now. J. R. Forster was the first to suggest that a volcanic eruption was responsible for the wreck of a primitive Easter Island civilization. Geologists are unanimous in rejecting this explanation. No volcanic outbursts have occurred on the island since time immemorial. The rocks that cover the plains and look as if they had been shelled from the craters were actually shaped by weathering of the basaltic surface.

Like other volcanic islands of Polynesia, Easter Island contains no rock that would indicate a connection with continental formations. Moreover, the island is surrounded by great depths of water which preclude the possibility of a recently sunken land in its vicinity. As Chubb (50, p. 42) writes: "No perceptible movement of emergence or submergence has taken place since the post pleistocene fall in sea level, that is according to Daly, during the last 3,500 years."

The theory of a sunken continent is no more substantiated by anthropological facts than by geology. For instance, how can we reconcile the position of the ahus around the coast with the hypothesis that the island was formerly more extensive? It is true that several ahus are now threatened by the sea but these are built on the edge of cliffs of volcanic ash. Ahu Ohau is on the verge of the cliff, and the right wing was cleft into two by a fissure when I saw it. Probably by now the greater part of the ahu has crumbled into the sea, as did Ahu-rikiriki, on the western slope of Rano-kao. But the waves act very slowly on the basaltic part of the coast. The ahus built there will survive for a long time, unless they are destroyed by human hands. On the whole, it is evident that the ahus were built near the coast where they stand today.

Brown (27) supports the hypothesis that Easter Island is the remnant of a sunken archipelago, basing his contention on the purported discovery of an austral land by the buccaneer, John Davis. Supposedly, Davis was the last to see this land, which has never been identified. Brown should have asked himself how a cataclysm so great as to submerge an archipelago could

1: Metraux E-5 (1934-1935) 1940
OY2 Easter Islanders OY2

have passed unnoticed in the eighteenth century and he should have questioned the accuracy of the position given by Davis to this land. If Davis discovered a land, it must have been Mangareva, the aspect of which corresponds to his description. Even if we admit that such an archipelago may have existed, there is no reason to suppose, as does Brown (27), that the Polynesian inhabitants needed to use Easter Island for the burial of their dead. There is no record of any Polynesian using a special island as a cemetery.

Neither the origin nor the end of the Easter Island culture can be interpreted through the theory of geologic change. Easter Island is not the remnant of a sunken continent or archipelago, nor was its civilization prematurely destroyed through volcanic eruptions.

Many scientists feel that the ancient Easter Island civilization was so remarkable that they persistently refuse to link it with the rest of Polynesia. The fact that the inhabitants at the time of discovery were Polynesians does not deter them. The usual solution of the problem has been to assume that these Polynesians represent a second wave of immigrants who occupied the island after previous people had developed a richer civilization than that brought by the invaders. But whence came these first settlers of the island? Of the many theories advanced to explain Easter Island civilization the only one that deserves scientific recognition is the hypothesis of its Melanesian origin. Physical anthropologists were the first to establish a link between the natives of Easter Island and the Melanesians. Under their influence, Balfour (9) pointed out several traits that in his opinion showed conclusively a relationship between these two regions of Oceania. His arguments can be summarized as follows:

1. An obsidian point of a type similar to the obsidian spear head (*matoa*) of Easter Island was found in the Yodda Valley in New Guinea. 2. The aquiline nose of the Easter Island wooden images suggests the Papuan type. The ear deformation of Easter Island natives is typical of Melanesia. The protruding mouth of the stone statues recalls the treatment of the mouths of carved images on boat prows of the Solomon Islands. 3. Bird-men are represented in both Solomon Islands and Easter Island art. 4. The frigate bird, as outlined on Easter Island, is a favorite motif in Solomon Islands ornaments. 5. The red tuff cylinders of the Easter Island statues represent artificially bleached hair, and bleaching of the hair is common in Melanesia (and Samoa).

These cultural parallels between Easter Island and Melanesia are exceedingly vague and indefinite. Obsidian points have been found by the hundreds on Easter Island; the New Guinea specimens are few. What makes the analogy striking is the correspondence between form and material. Obsidian could not be worked in the rest of Polynesia, since volcanic glass does not exist outside of New Zealand and Easter Island. The early settlers of Easter Island either must have carried the idea of using obsidian directly from New

1: Metraux E-5 (1934-1935) 1940
OY2 Easter Islanders OY2

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A, VIEW OF RANO-RARAKU FROM THE SOUTH; B, ANAKENA BAY; C, CISTERN AT LA PÉROUSE.

[End Plate I]

4:Metraux E-5 (1934-1935) 1945
OY2 Easter Island OY2

do well for themselves by barter with the white sailors who visit the island, but the women cannot be so provided for. They complain bitterly of the difficulty they have in satisfying their coquettish taste.

For an anthropologist, the material on Easter Island is rather scant. The old culture has nearly gone. No Westerner ever saw it while it was still functioning. The data on the past, which can be gathered, are limited to statements or tales which a few people have heard from fathers or grandfathers. Nevertheless, I was surprised to find a relatively rich folklore, which helped me to understand many aspects of the ancient civilization. Both legends and anecdotes stress cannibalism, which seems to have haunted the imagination of the Easter Islanders before the arrival of Christianity.

Those who expect to find in these traditions any evidence for the existence of a civilization previous to that of the Polynesians will be sadly disappointed. There is not a single feature of the Easter Island lore that does not point toward Polynesian origin. The language itself is pure Polynesian, and no words now in use hint of a legacy from any other linguistic stock.

These are the main facts to bear in mind as we turn to the problem posed by the mysterious gigantic statues and the inscribed tablets. But before we go into it, we must first consider what is to be said of the theory that the island is a peak of a sunken continent, since upon this assumption the classic interpretation of its mysteries has for a long time rested. There is no scientific evidence that Easter Island is the wreckage of such a sunken continent—Lemuria or Atlantis. It is plainly a typical volcanic island of recent origin, formed by a series of eruptions originating on the floor of the ocean. Soundings have revealed a depth of 1,770 fathoms 20 miles from its coast. Moreover, when the island was settled by Polynesian migrants it does not seem to have been much more extensive than it is now. Its coasts are subjected to continual erosion from the waves, and it is true that during the last decades a few of the monuments which once stood on the top of a high cliff have been precipitated into the sea. But since the ancient sanctuaries were erected along the shore, if the erosion had been very great, all of them would have been washed away by now. There has also been a question about a great road which, it is said, ran to the shore of the island and continued under water, suggesting that the shore was once much farther out. The famous French writer, Pierre Loti, was, if I am not mistaken, the first to mention this "triumphal avenue," which he thought would lead to the heart of the mystery. On a simple statement of this traveling poet visions of submerged glory have been based, and many good minds have allowed their imaginations to follow the submarine road down to enchanted palaces. The truth is that no such road exists. What Loti took for

4:Metraux E-5 (1934-1935) 1945
OY2 Easter Island OY2

a paved highway is seen on close examination to be only a bed of lava that in its flow reached the sea.

Other writers, abandoning the hypothesis of the sunken continent, have advanced the view that Easter Island is the center of an archipelago which vanished beneath the waves in a great cataclysm not so many centuries ago. They suggest further that the inhabitants of this supposed string of islands had used Easter Island as a burial place for their dead. According to this surmise, the dream Land of Davis would have been among the many islands that were submerged. But no geological facts can be found to support this theory either. We know, too, that the sanctuaries of Easter Island continued to be used as burial places by the islanders as recently as 70 years ago. Ruins of old villages near the monuments are added evidence that this speck of land was inhabited by the living in former times as it is today, and that it could not have been merely a mausoleum.

However, there remains the baffling fact that such a diminutive island is covered with great statues, some of them 30 or 40 feet high and weighing many tons. Despite my skepticism about the elaborate theories offered in explanation of this miraculous flowering of sculpture, I must confess that I, too, like all previous travelers to the island, was overwhelmed by a feeling of astonishment and awe when I first saw them.

There are few spectacles in the world more impressive than the sight of the statue quarry on the slopes of Ranoraraku. The place is indeed sinister. Imagine a half-crumbled volcano, a black shore line, and huge cliffs which rise up from the sea with smooth green pastures above them. Guarding the quarry, near the volcano, is an army of giant stone figures scattered in the most picturesque disorder. Most of them still stand out boldly. Successive landslides have partially covered others, so that only their heads emerge from the ground, like those of a cursed race buried alive in quicksand. Behind the rows of the erect statues, along the slopes of the volcano, there are 150 figures still in the process of being born. Wherever one looks in the quarry, one sees half-finished sculpture. Ledges of the mountain have been given human shape. Caves have been opened in which statues rest like those on medieval sepulchers in the crypt of some great cathedral. Hardly a single surface has been left uncarved by the artists in their frenzy to exploit the soft tufa of the mountain.

There is something weird in the sight of this deserted workshop with the dead giants all about. At every step, one stumbles over discarded stone hammers. It is as if the quarry had been abandoned on the eve of some holiday, and the workers were expecting on the day after to return and resume their tasks; indeed, in several cases, only a few more blows would have been needed to cut the statues finally free from the rock of the slope.

6: Anonymous T-5 (1770)1908
OY2 Easter Islanders OY2

Thursday, 15th. At five o'clock in the morning we made sail, getting all the canvas on her, *en vuelta de uno*, the horizon being cloudy; but at half-past seven it cleared up, and we sighted land ahead. Being fully confident that there was more than lay in the N.W. we continued in search of it. Notwithstanding we were as much as 8 to 10 leagues distant we were able to make out that it was not mountainous, but of moderate height, and not timbered. The extent of horizon it occupied was 45°, that is, from N.N.W. to W.N.W., between which points there was visible an indentation of the coast with a distinctive landmark in the centre, consisting of two pap-like eminences [*tetas*] or peaks rising above the rest of the outline. At ten o'clock, being then from 5 to 6 leagues from land, the most northern part of the island bore N.N.W. 5° N.W. At noon I got an observation of the sun in 27° 13′ of latitude, being by my calculation in long. 267° 2′. At that hour the southern point of the island stood out clearly, and was bearing W.N.W. 5° W., and the northern one N. 5° N.W. Our position was then about 3 leagues off the shore, whose soil we noticed to be covered for the most part with green scrub, one species of coarse bush standing prominently above the rest so as to give an appearance like pyramids on the beach, as if symmetrically set up. These were also dotted in a scattered fashion about the country inland, which appeared to us to be fertile, as we observed no broken ground, nor precipices, nor stony places throughout it, but various valleys, and plains forming the mountain plateaux as it were, and quite covered with greenery as far down as the sea-beach, showing the fertility of the country. As soon as we came close up with the southern point already mentioned the Commodore began to find the wind baffling, working along shore towards the N. at a distance of a league from the land, in which we made out the bay already mentioned, from which a great smoke was

6: Anonymous T-5 (1770)1908
OY2 Easter Islanders OY2

The island extends to about 50 miles in circumference; but no harbour capable of affording shelter to a single vessel of moderate burthen was met with. The whole of the shore-line is beset with reefs, cliffs, and rough ground, without containing any spot fit to beach a boat at. On penetrating inland in a few places they met with many natives, with whom they held intercourse, and they observed in them the same manners, customs, and ceremonies as in those of this bay; experiencing among them the same disposition to theft. They saw no kind of wild nor domestic animal, excepting hens and some rats. The fields are uncultivated save some small plots of ground, in which they sow beds of *yuca*, yams, sweet potatoes, and several plantations of plantains and sugar-cane: but all very tasteless, as if from want of cultivation. They did not find any metal, nor any ornaments of that kind in the natives' habitations. All this account tallies with the observations we have gathered in this bay, on whose slopes, and on those throughout the island, not a single tree is to be found capable of furnishing a plank so much as six inches in width; but there are plenty of shrubs or brush-wood of a sort little more than an *estada*[1] in height, which offer little obstruction to one in passing as they are not dense and have no prickles. Its trees are very similar to mimosas and tamarinds. Of fruit-bearing trees I have seen only some very small figs, but so different from ours that they are recognisable as such only by the scent of the leaf, and the white juice which exudes from them. It is certain that they bear fruit, because the natives were eating some dry figs on board, which we gave them from those of Mendoza, and they called them *gecoy*. The island is destitute of every kind of bird: not a single bird has been

[1] An *estadal* or *estada* is equivalent to four *varas* of about 33 inches each, *i.e.* 11 feet.

7: Anonymous T-5 (1770)1908
OY2 Easter Islanders OY2

131 From the 13th of the said month, when we saw so many birds, and amongst them the white ones and the first of these, we continued sailing W. for a distance of 32 leagues; and from the time we saw the sandpipers [*chorlitos*] as far as the island we sailed 10 leagues, so that when we saw them the island lay to the N.W. of us, 13½ leagues off, for which reason we sailed on that course after having sighted the sandpipers and the island: these remarks are interesting only for navigators.

133 [202] On the 15th, after bearing up at noon in quest of a harbour on the north side of the island we noticed, as we closed in with the land, that there were people on shore who were making signals to us by means of smoke, in several parts of this new land; and when we had rounded the north-easternmost point, called after San Felipe, we saw a bay which appeared might prove a good harbour, being then about half a league distant; and we lowered a boat into the water. I embarked in her with Don Alberto Lesuda[1], Captain of Marines, a serjeant, six men, the boat duly equipped, and all hands provided with their respective arms, proceeding with the precaution and care appropriate to the business in hand.

We went in to take soundings of the bay without being acquainted with the character of the natives, or whether they possessed canoes or not. We left the ship at a quarter

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[1] The officer here meant by 'Lesuda,' and in a place where cited farther on as 'Leonda,' is Don Alberto Olsondo, whose substantive rank was that of Teniente de Navio, or a senior Lieutenant in the Navy, although, by a not unusual complication of dignities in that service he was also a Capitan de Infanteria, or as we should say, an officer of Marines. He subsequently received promotion, and in 1779 when war was declared with England he commanded the *Atlante*, a 70 gun ship of the line which formed one of the fleet under the Marqués de Casa Tilly assembled in the Bay of Cadiz to oppose Rodney. His old Easter Island comrades Don Antonio Domonte, and Don Buenaventura Moreno, were also present there, commanding the *San Eugenio* and the *San Nicolas* respectively, each of 70 guns. [Travieso, Bibliog. no. 50.]

7: Anonymous T-5 (1770)1908
OY2 Easter Islanders OY2

past three in the afternoon, and proceeded to take soundings shorewards. We got no bottom until quite close in, where I found thirty fathoms; and from thence to the beach a very foul bottom of rocks, gravel, and coral; from thirty to forty fathoms I found coarse sand, but with a few large round stones: this might serve [to bring up in] nevertheless for a short time, while searching for a better anchorage.

At the time we set about taking soundings the frigate's boat came along for the same purpose, in which was Don Buenaventura Moreno, Captain of Marines, similarly armed and equipped; and when we drew close in to the shore taking soundings, we saw several natives of the country on the beach shouting to us in their language, of which we understood nothing. These were naked, and painted, body and face. When I had made an examination of the bottom I returned on board my ship, and the other boat to hers: I explained the quality of the ground to the Commodore, and having arrived somewhere about 6 o'clock in the evening he decided not to move away from the place until the following day[1].

On the 16th at half-past five in the morning I started away from the ship's side in the cutter, and proceeded to take up a position where the boat anchorage was, to serve as a mark for the ship, which came in and let go in 35½ fathoms, coarse sand; and having laid out another anchor in 50 fathoms, she swung to with 28 under the keel, same bottom. The leading marks for this position are the small saddle-shaped hill bearing S. 3° W., with Cape San Lorenzo E. ¼ S.E. 3° E. by the needle, which in this locality has 3° of variation N.E.

[1] This sentence, taken by itself, sufficiently proves that the author of this journal was an officer of the *San Lorenzo*, and not of the frigate.

7: Anonymous T-5 (1770)1908 .
OY2 Easter Islanders OY2

points; and during the remainder of the day the only place we found fit to land at was the cove of San Juan, as it had a sandy beach. We did not disclose our presence there, in order not to lose time. We considered that it must have a plentiful supply of fresh water, because we saw there more gravel [*chacaras*] than in any other part of the island. We also found the best anchorage for ships.

On the 17th of the said [month], day dawned with the horizon clear, and a moderate breeze from the Eastward. At five in the morning we got under way in both launches and made sail towards the Cape of San Antonio. Half a league before reaching the cape we came abreast of a point, off which were a quantity of rocks or boulders sticking up out of the water; and saw that two little canoes were coming out from among them with two men in each, making for the *Santa Rosalia's* launch; so we waited for them in order that they might join our party. They gave the people of the said launch plantains, Chili peppers, sweet potatoes and fowls; and in return our men gave them hats, *chamorretas*, &c., and they went off contentedly with these to the shore. These canoes are constructed of five extremely narrow boards (on account of there being no thick timber in the country) about a *cuarta*[1] in width; they are consequently so crank that they are provided with an outrigger to prevent them from capsizing; and I think that these are the only ones in the whole of the island. They are fitted together with wooden pegs in place of nails. Then we passed on to examine the rocky islets to which we gave the name of 'Lángara': they lie S.W. ¼S. from the cape of San Cristoval, the seaward one being about a mile off that headland, and the inshore one in between. They are about half a cable apart the one from

[1] A *cuarta* is a quarter of a *vara* or yard, and may be roughly translated a 'span.'

7: Anonymous T-5 (1770)1908
OY2 Easter Islanders OY2

the other, and we found 26 fathoms there, rocky bottom. The middle one resembles a high church tower; we attempted to gain a footing on it, but found it little accessible. We passed on to the outer one, where we succeeded in landing, and on which we found two large masses of seaweed, many black flints, some sea urchins and small crabs, eggs of sea-gulls and their fledgelings. On these rocks alone did we see any sea-gulls, and excepting fowls we saw no other kind of birds on either of the other islets, nor on the island of San Carlos, either small or large, wild or domesticated. The islanders breed these fowls in little runs scraped out in the ground and thatched over.

Having made an investigation of these islets we pursued our course along the coast, at times under sail, at other times under oars; and, the wind holding contrary, at three o'clock in the afternoon we stood in towards a smooth patch of foreshore about a league away to the N.E. of Cape San Francisco. Here we decided to bring up for the night in a small bay which appeared to us to be a suitable place for the purpose, and to which we gave the appellation of the Cave, because there was one adjoining the beach at this place with furrows in it of various tints, from which the natives gave us to understand by signs they obtained the pigments with which they paint themselves. This bay is only suitable for launches. We all went ashore to eat our dinner, which we carried with us for that purpose, and some hundred or so natives came to look on, offering us fruits and hens. The officer, Don Cayetano de Lángara, issued orders to our people that no one, under pain of a severe flogging, should accept any article from the islanders without giving some equivalent in return, or something of greater value than that which they received, since it was known there was a disposition to exchange articles; and such in fact was put into practice.

7: Anonymous T-5 (1770)1908
OY2 Easter Islanders OY2

609 in any way disturbed, which may be attributed to the order which the officer gave our men not to give them any offence, backed by the threat of a flogging, without which our marines and seamen would have destroyed these poor wretches' plantations.

133 The morning of the 18th broke fine, with the wind from North: we continued along the coast, which is all surf-bound, sounding as we went. At 8 o'clock the frigate's launch, not being able to make any headway against the wind, put into a small bay to wait for it to calm down; and we ourselves reached the cove of the Campana[1] under oars at 5 in the afternoon, in order to stay there the night. We stepped ashore there and some islanders came to receive us, but a shower of rain made us turn back to our launch for the night. On that side of this cove towards the headland of San Felipe a rock shaped like a bell juts out from the shore, and from this the cove derives its name.

We made sail at daybreak on the 19th with the wind at N. and fine weather, for the headland of San Felipe, where we were joined by the other launch, who reported that they had no news. At this time we were battling with the current, against which we were not able to make any headway with the oars, and which was running to the eastward. The frigate's launch, being smaller than ours, was able to get along better than we, and those on board seeing us contending against the persistence of the current, sent us the cutter with a fresh crew to relieve our men, who were done up. Yet the current made itself felt with such force that after pulling from 9 a.m. until 6 o'clock in the evening we had scarcely made one league of distance from Cape San Felipe. At this hour, however, God favoured us with a thunder squall accompanied by rain and a change of wind from N.W. to S.E., which brought us alongside at half-past seven

[1] i.e. Bell cove=*Caleta de la Campana.*

7: Anonymous T-5 (1770)1908
OY2 Easter Islanders OY2

o'clock, thus terminating our expedition without other adventures than already related. [133]

We were satisfied that the roadstead in which we lay at anchor is the best the whole island affords, excepting that of San Juan, to which we did not remove, as we should so soon be leaving this country again, inasmuch as there only remained for us to take possession of it in the name of the King. [648]

On the 20th, at daybreak, all the seamen bearing arms embarked in the launches and cutters of both vessels, under Don Alberto Olaondo[1], Captain of Marines, with his party of marines and those from the frigate, who together made up 250 men. All these proceeded towards the interior of the island to survey the country. Our Commander [*segundo capitan*], Don José Bustillos[2], went with another body of marines and seamen, and the two chaplains, who conveyed with them three crosses to be erected on three hill-tops which, as may be seen on the Plan, exist at the N.E. point of the island.

A great number of the native inhabitants received them on landing, and offered to assist our officers in the disembarkation, which, in fact, they did; and took charge of the three crosses, which they carried up to the said hills: the chaplains chanting Litanies, and the islanders joining with our people in the responses, *ora pro nobis*. At the moment of digging the hole on the centre hill, a fine spring of fresh water broke out, very good and abundant. The crosses being planted the party fired three volleys of musketry, and the ships replied with twenty-one guns each, to the joyful shout of *Viva el Rey*. The islanders responded with our own people; they pronounce with such ease that they repeat whatever is said to them just like ourselves. This undertaking being achieved we all returned on board. [153]

[1] 'Leonda' in the MS.; evidently Capt. Olaondo is again meant.
[2] 'José Gustillo' in the MS.; evidently Josef Bustillos is intended.

9: Forster T-5 (1774) 1777
OY2 Easter Islanders OY2

1774. MARCH.

CHAP. IV.

An Account of Eaſter Iſland, and our Stay there.

X 175 Sunday 13. 133

ON the 13th, early in the morning, we ran cloſe to the ſouth point of the iſland, where the ſhore roſe perpendicularly, and conſiſted of broken rocks, whoſe cavernous appearance, and black or ferruginous colour, ſeemed to have been produced by ſubterraneous fire. Two detached rocks lay about a quarter of a mile off this point; one of them was ſingular on account of its ſhape, reſembling a huge column or obeliſk, and both were the habitations of numerous ſea-fowls, which ſtunned our ears with their diſcordant ſcreams. Soon after we opened another point about ten miles diſtant from this, and as we advanced we perceived the ground gently ſloping to the ſea. On the ſlope we diſcovered ſeveral plantations by the help of our glaſſes; but the ſurface of the iſle in general appeared to be extremely dreary and parched, and theſe plantations were ſo thinly ſcattered upon it, that they did not flatter our hopes of meeting with conſiderable refreſhments. However, our eyes, long unuſed to the enchanting proſpect of verdure, were conſtantly directed towards the ſhore, where we diſtinguiſhed a number of people nearly naked, haſtily running down from the hills towards the ſea-ſide.

X 175 609 [291]

We

9: Forster T-5 (1774) 1777
OY2 Easter Islanders OY2

1774. MARCH. feet high, over which the people had built a round projecting funnel to keep off the wet. We crept on all fours into this opening, and found the inside of the hut perfectly naked and empty, there being not so much as a wisp of straw to lie down upon. We could not stand upright in any part except just in the middle, and the whole place appeared dark and dismal. The natives told us they passed the night in these huts, and we easily conceived their situation to be uncomfortable, especially as we saw so very few of them, that they must be crammed full, unless the generality of the people lie in the open air, and leave these wretched dwellings to their chiefs, or make use of them only in bad weather.

Besides these huts, we observed some heaps of stones piled up into little hillocks, which had one steep perpendicular side, where a hole went under ground. The space within could be but very small, and yet it is probable that these cavities likewise served to give shelter to the people during night. They may, however, communicate with natural caverns, which are very common in the lava currents of volcanic countries. Such caverns are very frequent in Iceland, famous for having been the dwelling-places of the ancient inhabitants. Mr. Ferber, the first mineralogical historian of Vesuvius, has noticed such a subterraneous hole in one of the modern lavas of that mountain. We should have

9: Forster T-5 (1774) 1777
OY2 Easter Islanders OY2

1774. MARCH. About an hundred natives, and among them four or five women, accompanied us on our march, and ſold us a quantity of potatoes and a few fowls, which we added to our ſtock of proviſions. We found the whole country ſtrewed with ſtones of various ſizes, of a cavernous or ſpongy texture, and of a black, brown, or reddiſh colour, which had indubitable marks of having been in a volcanic fire. The paths through this rugged ground are in ſome meaſure cleared of the ſtones, but ſo very narrow, that we were obliged to turn our toes inwards, at which the natives are perfectly expert, and to ſet one foot exactly before the other. This mode of walking was exceſſively fatiguing to us who were not uſed to it, ſo that we continually hurt our feet or ſtumbled. On both ſides the ground was covered with a thin perennial Jamaica-graſs, *(paſpalum,)* which grew in bunches or tufts, and was ſo ſlippery that we could not walk on it. We reached the eaſt ſide of the iſland, near a range of ſeven pillars or ſtatues, of which only four remained ſtanding, and one of them had loſt its cap. They ſtood on a common pedeſtal, like thoſe which we had ſeen on the other ſide, and its ſtones were ſquare and fitted exactly in the ſame manner. Though the ſtone of which the ſtatue itſelf is formed ſeems to be ſoft enough, being nothing but the red *tufa* which covers the whole iſland, yet it was incomprehenſible to me how ſuch great maſſes could be formed by a ſet of people among whom

we

10: Cooke D-5 (1886) 1899
OY2 Easter Islanders OY2

men into their cave, the officers into their tent. Previously to doing so, however, we took precaution to stuff our ears with paper, in order to exclude the "snapping beetle," one of the *Elateridæ*, credited by the natives with a predilection for that organ, and myriads of which had been assailing us.

Our bed was composed of the moku—native grass—over which we placed our rubber sheets. At 2 o'clock in the morning we were awakened by a heavy rain storm, against which our flimsy patchwork tent proved but poor protection, the water either pouring through or running under our bed of litter.

On Wednesday, December 22, after a hearty breakfast, finding that we were none the worse for the previous night's experience, we struck camp, the pack animals were loaded, and at an early hour we were under way again. Our course this day continued along the coast line to the northward and around North Cape, skirting the base of Rana Hana Kana. The shore all along this part of the island is bold, rocky, precipitous, the black frowning basalt cliffs rising in many places to the height of hundreds of feet, truly an "iron-bound" coast, upon which the seas break with terrific fury, dashing the spray high in the air. The powerful solvent action of sea water upon even the hardest volcanic rock may here be seen exemplified in the fantastic shapes wrought by the waves on every side, the arches cut through, the innumerable caves excavated in the face of the cliffs, the pinnacles, towers, basins, etc., visible at every step. Many of the caverns were explored, and human and other bones found in some of them. The character of the surface land was about the same as on the preceding day, and the tramp over rocks and stones was a weary and trying one.

During the afternoon a detail of men was again sent ahead to locate the camp for the night, near a fresh-water spring known to the natives, and which the remainder of the party reached toward sunset. This, which we named "Camp Day" in honor of our commanding officer, was situated in the district of Vai-maitai (good water), near Motukau Point, about 3 miles distant from our camp of the night before, but fully three times as many by the route we had taken. One of the natives was sent back to the ship, with a note, for additional supply of stores. Two caves were occupied at this camp, one by the officers, the other being allotted to the men.

Despite the promising name of the district, the water again proved bad, being brackish. A couple of sheep had been captured and dressed, and from these and canned food, garnished with taro, sweet potatoes, and bananas, baked by the natives in their inimitable way, and washed down with copious drafts of tea, an excellent meal was made. Our cave proved a damp, ill-smelling place, and visions of pneumonia, rheumatism, and other resultant affections dominated our dreams, rendering sleep fickle and unrefreshing.

At 7.30 on the morning of Thursday, December 23, we were again

10: Cooke D-5 (1886) 1899
OY2 Easter Islanders OY2

tireless, anxious to please, and ready at all times, day or night, to do our bidding. Two of them, Luka and Huki, were especially useful to us. The latter was the more intelligent of the two, and was remarkably well informed regarding everything pertaining to the island. He knew the name of every point, headland, bay, etc., and his replies to our questions were given without hesitancy and so correctly, as we found by testing him, that he frequently surprised us. The writer obtained much information from him, and might have gained much more, regarding the native plants, insects, shells, etc., but unfortunately our interpreter, who had been but a short time on the island, was practically useless as a medium between us, and to understand each other's meaning was therefore most difficult. Owing to this fact, the want of facilities and conveniences for collecting and preserving specimens, and the absence of works of reference, but little could be accomplished in the particulars above mentioned.

A source of great annoyance to us during our trip was the hordes of flies which kept us company on the march, and then whenever we approached camp in the evening were greeted and cordially welcomed by other hordes which had been in previous possession of the locality. Many of the islands of the South Pacific are noted for the swarms of flies which infest them, one Rairoa, having been named by the navigator Schouten, 1616, Vliegen Islands by reason of the myriads which assailed and finally drove him to sea.

Another, and in some respects even worse plague, was the fleas, which had their origin in the numerous dogs kept on the island.

One more source of discomfort, in connection with our stay at the hospitable residence of Mr. Salmon, was the host of cockroaches which swarmed every part of the premises, measuring 2 or more inches in length, with antennæ to correspond, and furnished with wings of a beautiful glistening brown.

TOPOGRAPHY.

From the most reliable information obtainable it appears that the ancient name of the island was *Te Pito te henua*. Referring to the vocabulary it will be seen that the word *Pito*, in Rapa Nui signifies *navel*, and *henua*, the *uterus*. What association of ideas could have prompted these appellations it is, of course, difficult to imagine at the present day. The following speculations, which have occurred to the writer, are given for what they may be worth. The island is distinctly of volcanic origin, and on nearly all the hills and mountains the craters are clearly traceable, most markedly and startlingly so in the case of Rana Kao, at the southwest end. As will be seen, the craters of both volcanoes (all on the island are now extinct) are of great depth, with lakes of water at their bottoms. In the cases of the other volcanoes the craters are much more shallow, symmetrical, more evenly rounded, overgrown with grass, present a very striking and beautiful appear-

10: Cooke D-5 (1886) 1899
OY2 Easter Islanders OY2

103 ance, particularly when the slanting rays of the rising or setting sun
● 133 shine upon them, and at that time especially, when they stand so prominently forth, would readily suggest the human navel, from which it may be inferred that portion of the name of the island might be derived.

Regarding the other word, *kenua*, the *uterus;* can it be that they meant to designate by this term the great volcano Rana Roraku, in whose womb was created, and from whose vitals was born that host of monolithic images which once reared their colossal forms aloft, giant genii guarding these rock-bound shores, and which to-day, prone and mutilated as they are, fill the mind of the voyager with wonder, awe, and admiration?

103 *Hiti te ciranga*, the name said to have been given to the island by the English is, perhaps, a corruption of that above-mentioned, as is certainly also the name *Te Pito Jenua*, wrongly stated as signifying "the land in the middle of the sea." The name *Rapa Nui*, signifying Great Rapa, is modern, having been given to the island by the Tahitians twenty years since, to distinguish it from *Rapa iti*, Little Rapa, otherwise called Oparo, an island lying 1,900 miles to the westward, in the direction of the Society Group, which latter is 2,500 miles distant. The name Easter was given the island by Roggeween, who discovered it on Easter Sunday, 1721. It has also been called by various names, such as Teapy and Waihu.

It has often been subject of remark that this propensity of giving new, modern, European names to lands and islands, not only when originally discovered, but often when merely revisited, may be considered as not only in questionable taste, but as leading to endless confusion. The charts and Sailing Directions are replete with instances of that sort, cases occurring when perhaps half a dozen modern and strangely appearing names, each by a different navigator, are applied to one small island or group of islands. The spelling of the native names is also, in many instances, wide of the mark. These strictures may be said to apply with special force to the island under consideration, and, therefore, in these reports and on the corrected chart its ancient name, as well as the native names of its mountains, bays, and headlands, have been adhered to as closely as practicable, while at the same time the greatest care has been exercised in spelling them phonetically as received from the natives.

175 Since its discovery the island has been visited at successive times by Cook and La Perouse; by the H. M. S. *Blossom* in 1825, and *Topaze* in 1868; by the Chilean gunboat *O'Higgins* in 1870 and 1875; by the H. M. S. *Sappho* in 1882, and by the German gunboat *Hyæna* in the same year.

The U. S. S. *Mohican* arrived at the island December 18 and sailed December 31, 1886.

131 The distance to the nearest inhabited island to the westward, Pit-

10: Cooke D-5 (1886) 1899
OY2 Easter Islanders OY2

cairn, is 1,100 miles, and the South American coast is 2,100 miles to the eastward. [3]

The island is irregularly triangular in shape. Its greatest length from NE. to SW. is 13 miles; its greatest width from North Cape to Cape Hoe-Hoe, in a direction from NNW. to SSE., is 7 miles. The circumference, measuring from headland to headland, is about 34 miles, and the area of the island is 34 square miles.

The surface is diversified mountain and plain, the former usually rising abruptly from the latter, and generally at a distance from each other, so that, with one or two exceptions, it can hardly be said that there are valleys, strictly speaking. The mountains—a goodly number in proportion to the area of the island—are mostly cone shaped, and not of very great elevation, the tallest, near Cape North, being but 1,767 feet high. The most extensive plain is at the base of Rana Roraka, extending thence in a westerly direction for several miles, and it is believed that in ancient times a large town existed on this site, in whose vicinity all the monoliths were carved. [33]

The coast line on the southern and western sides, except at the extreme southwest end where Rana Kao looms up, is generally low, but extremely rocky. The northwestern, northern, northeastern, and eastern coasts are a succession of black, frowning, precipitous, basalt cliffs, worn into innumerable caves by the erosion of the sea, and with huge attached bowlders scattered at the base, over and against which the waves dash with resistless fury, forming a veritable iron-bound coast. Many of the caves thus formed have been inhabited and have also been used as burial places; and the remains of human beings, with implements interred with them or secreted by the modern natives, sometimes reward the diligent searcher. [172]

There are but two or three points around the entire coast line at which a sandy beach may be met with. One of these, small in extent, is on the south side, near Mr. Salmon's residence at Vaihu, in a picturesque little bay, used as a bathing ground and boat landing.

Another, and much the larger, forms the beach of Anakana Bay on the north side of the island, the legendary landing place of Hotu Metua, and by far the best and safest boat harbor around the coast.

The soil is for the most part decomposed or disintegrated lava, nowhere of any great depth, but exceedingly fertile and in places, as for example, where excavations were made inside of cairns, it was found of the fineness, color and richness of garden mold. [134]

Except where a few clearings have been made, nearly the entire surface of the island is covered in astonishing profusion with fragments of lava, varying in size from that of a pebble to that of a huge bowlder. They are nearly black in color, hard, sharp, angular, weather-worn; and it is these, in places *covering* the ground, which render pedestrianism so difficult and laborious.

Until supplied with wood from wrecked lumber vessels the modern [342]

10: Cooke D-5 (1886) 1899
OY2 Easter Islanders OY2

[137] There are a few stunted trees and bushes growing near the water's
●133 edge, inside the great crater of Rana Kao. This remarkable volcano is 1,327 feet high. The diameter of the crater at the top is 4,150 feet. At the water line inside it measures 2,085 feet across. The depth from the top to the lake is 600 feet, so that the surface of the latter is 727 feet above the sea level. The crater is nearly a perfect circle and unbroken at its upper edge, except at a point at its southern side, toward the ocean, where exists a large cleft or notch, through which, no doubt, the lava, when the volcano was active, found its way to the sea, and perhaps assisted in forming the small adjacent islands of Mutu Nui and Mutu Raukau. It was to this latter island that their swimming matches were annually held, in the effort to see who should be the first to reach it, climb to the precipitous sides, and bring back one of the sacred eggs of the sea bird, to which they attached such a superstitious value, and which conferred kingship for the year on the lucky captor for his prowess. This rock, covered with birdlime, looks at a little distance like a huge inverted stalactite projecting high in air from the depths of the sea. The labor and difficulty involved in mounting it, therefore, may be imagined.

133 The interior of the crater (Rana Kao) is distinctly conical in shape,
487 resembling a vast amphitheater, and presents a magnificent view. Trails lead to the bottom, in various directions, evidently the tracks worn by animals; but the descent, as well as the ascent, is most difficult, and but very few ever attempt the feat.

133 Grazing around the edge of the lake, as well as on the floor of vege-
137 table matter floating on its surface, could be seen cattle which looked, at that dizzy height, of about the size of sheep, and sheep which appeared like rabbits. The lake at the bottom has been sounded by Mr. Salmon to a depth of 300 feet, when his line parted, without touching bottom. The surface edge is covered, over almost its entire extent,
137 with a thick, dense, intertwined, vegetable growth, the accumulation
312 of many years, from which grow small trees and bushes of considerable size. At various places, and few in number, over this floating, elastic, vegetable floor, which rises and falls as the water in the lake increases or diminishes in quantity, according as it is the rainy or dry season, are openings of variable size and irregular circular shape, through which the water appears, rippled by the passing winds, and to which the animals resort to drink. Around these openings the vegetation is of a vivid green, evidencing present and vigorous growth, as well as gradual but steady encroachment on the small remaining free surface of the lake, so that in course of time it will no doubt become entirely covered. Other portions of the vegetable mass are of a deeper shade of green, while still other and older parts are of varying tints of brown.
312 Cattle and sheep may be seen browsing unconcernedly over various portions of the floating floor of vegetation, a curious and interesting spectacle, and instinctively, perhaps, avoiding the treacherous places

11: Lavachery A-5 (1934-1935) 1937
OY2 Easter Islanders OY2

EASTER ISLAND, POLYNESIA[1]

By HENRI LAVACHERY[2]
Royal Museums of Art and History, Brussels

[With 4 plates]

Few places in the world have given rise to more fantastic speculation than this volcanic island, 70 square miles in area, lying in the Pacific Ocean, lat. 27°10′ S., long. 109°20′ W. Actually the so-called "mysteries of Easter Island", or rather the explanations which have been offered, are not the work of trained men of science. It is natural that the huge statues, standing erect as they do in a naked landscape against a background of black and yellow, should have appealed to the poetic imagination. But those who wish to face with candor the problems presented by certain parts of the world may well be annoyed when the poets' lyrical love of mystery becomes the starting point of speculation. The best students of Easter Island have always told us that it was Polynesian and could only be explained by Polynesia.[3] The evidence that we have now obtained is merely an addition to what was already a formidable pile. Nevertheless we expect that before long others will come forward again with tales of a lost continent of Lemuria, submerged beneath the waters of the Pacific; and that Easter Island is one of its peaks, peopled with Lemurian idols!

For geologists are in complete agreement upon this point. If a Pacific continent existed, it was long before the advent of man and

[1] Reprinted by permission, with some changes in the illustrations, from Antiquity, vol. 10, no. 37, March 1936.

[2] Dr. Henri Lavachery, the writer of this article, was the Belgian member of the Franco-Belgian Expedition which visited Easter Island and remained there from July 29, 1934, to Jan. 3, 1935. It was initiated by Prof. Paul Rivet, of the Ethnographical Museum, Paris, and was actually two expeditions—a French one consisting of M. Watelin (who died before reaching Easter Island) and Dr. A. Métraux (of Swiss nationality), and the Belgian expedition represented by Dr. Lavachery. A joint subsidy was made by the Belgian Government and the National Belgian Fund for Scientific Research. The expedition was transported to the island by a French naval vessel and taken off it by the Belgian training ship *Mercator*. The visit of the expedition and the formation of its collections were both greatly facilitated by the Government of Chile, to which Easter Island belongs, who gave the most generous instructions to their representative on the island. After the death of M. Watelin, M. Lavachery assumed responsibility for the archeological work, while M. Métraux had charge of the ethnographical and linguistic investigations. A report on the results of the expedition was published in the Bulletin des Musées Royaux, Bruxelles, May–June 1935, no. 3, pp. 50–63; July–August, 1935, no. 4, pp. 81–90.

[3] Routledge, Mrs. Scoresby, Mystery of Easter Island, 1919.

11: Lavachery A-5 (1934-1935)1937
OY2 Easter Islanders OY2

in a part of the southern ocean far removed from that in which the gaunt cliffs of Easter Island confront the unceasing assault of the waves. It is surrounded by vast ocean depths which occur in the expanse of 2,500 miles of ocean separating the island from the American coast on the east and from the nearest land 1,750 miles to the west, namely the Gambier Islands. Easter Island is a volcanic island, and a lofty one, like the Marquesas and Hawaii, in contrast with atolls and coral islands which are low-lying. If one could denude such islands of their dense coverlet of mango-scrub, breadfruit trees, bamboo and cocoa palms, drain the springs, and cover them with a growth of yellow herbage—then such an islet as Hivaoa of the Marquesas will come to resemble Easter Island.

It is the bareness of Easter Island, the result of its colder climate and exposure to the four winds of heaven, which has given birth to these misconceptions. The idea of Polynesia does not fall in with a barren rocky landscape, monotonous pampa, or a pale sun incessantly obscured by rain-clouds.

These talkative Pascuans,[4] like naughy laughing children, whose language and appearance is Polynesian without a shadow of doubt, can no longer be denied those ancestors who carved the notorious statutes, engraved the puzzling symbols of *rongorongo* and set up round the island's coast all those innumerable monuments (actually 184).

At what date was Easter Island first settled? There are excellent reasons for believing that it was between the twelfth and thirteenth centuries of the Christian era. We have certain traditions relating to the peopling of Hawaii and New Zealand. The Polynesians established themselves there at the end of their migrations between the eleventh and thirteenth centuries. Considering the remoteness of Easter Island, it is reasonable to suppose that it was peopled about the same time. The approximate date of the colonization of this island is, however, based upon the list of the Pascuan kings. This list has been narrated to several observers; the most complete is that of Thompson[5] who obtained it from an informant who was a survivor of the pagan period. One may assume a length of 12 years for the reigns of each of the 57 kings in the list. Maurata, the last Pascuan who was certainly regarded as a king, died in 1864, as a result of the Peruvian slave raids. Calculation gives us exactly the beginning of the thirteenth century.

[4] We may well adopt the English equivalent to avoid the clumsy "Easter Islanders."—Translator.

[5] A paymaster of the American Navy, and the author of a short archeological account which, considering that it was based merely upon a visit of 8 days, is remarkably informative and full. (Rep. U. S. Nat. Mus., 1889, pp. 447–552, 1891.)

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11: Lavachery A-5 (1934-1935) 1937
OY2 Easter Islanders OY2

1. FACADE FACING SEA, AHU OF ANAKENA, EASTER ISLAND.
The huge blocks are worked only at the joints.

2. VOLCANO OF RANO RARAKU, EASTER ISLAND, SHOWING STATUES BELOW QUARRY.

[End plate 1]

12: Routledge E-5 (1914-1915) 1920
OY2 Easter Islanders OY2

possible to remove them at the right moment, the high eddying wind from the cliff tearing them to pieces as they dried.

While every endeavour has been made to ensure accuracy, it will be readily understood that it has been almost impossible to avoid all mistakes and omissions, especially when matters cannot be fully written up on the spot. These it is to be hoped will be rectified by our successors.

Finally, an appeal must be made for kind indulgence owing to the circumstances under which the text has inevitably been finished, which render it impossible to obtain friendly criticism or make personal correction of the proofs.

S.S. *Camito*, off Jamaica,
Christmas Day, 1920.

HISTORY, POSITION, AND PLAN OF THE VILLAGE.

On the summit of the extinct volcano known as Rano Kao, which forms the south-western angle of Easter Island, stand the old stone village and carved rocks of Orongo. There is as yet no clue to the date of the earliest houses or carvings, but the dwellings were occupied as lately as the sixties of last century, and the builder of one of the latest is said to have been remembered in recent times. The site was connected with a bird-cult practised in the islands, and the inhabitants awaited here the coming of a migatory sea bird, the Sooty Tern, which nested on some rocky islets near at hand. Such information as could be gathered about the bird-cult has been recorded elsewhere,[1] and it is proposed to deal here only with the existing stone remains.

On three of its aspects the mountain of Rano Kao has been worn away by the sea till its sides are almost vertical, and, in its outermost portion, only a narrow edge of rock separates the lake, which lies within the crater basin, from the Pacific Ocean. The village commences where the width of the rim, between the crater wall and the sea cliff, is about one hundred yards. It follows the diminishing summit for about two hundred yards and terminates very shortly before the narrowest part of the rim is reached, and where the breadth of level ground is only 30 to 40 feet (Plate III).

Where the houses begin the crater edge is somewhat higher than that of the cliff, and the dwellings lie, broadly speaking, in two rows which at one point overlap one another. The final houses are built amongst a group of rocks which are highly carved. All the houses face the sea, and are entered from that side. For the sake of convenience, the front, or seaward aspect, will be uniformly termed the "south" side; actually it varies somewhat, but is most generally south-west. The total number of dwellings is forty-eight.[2]

[1] See *Folk Lore*, December, 1917: *The Mystery of Easter Island*, p. 258.

[2] The numbers shown on plan reach forty-five, but in three cases, where a house has not been identified by the Surveyor, it has been inserted and the numbers duplicated.

12: Routledge E-5 (1914-1915) 1920
OY2 Easter Islanders OY2

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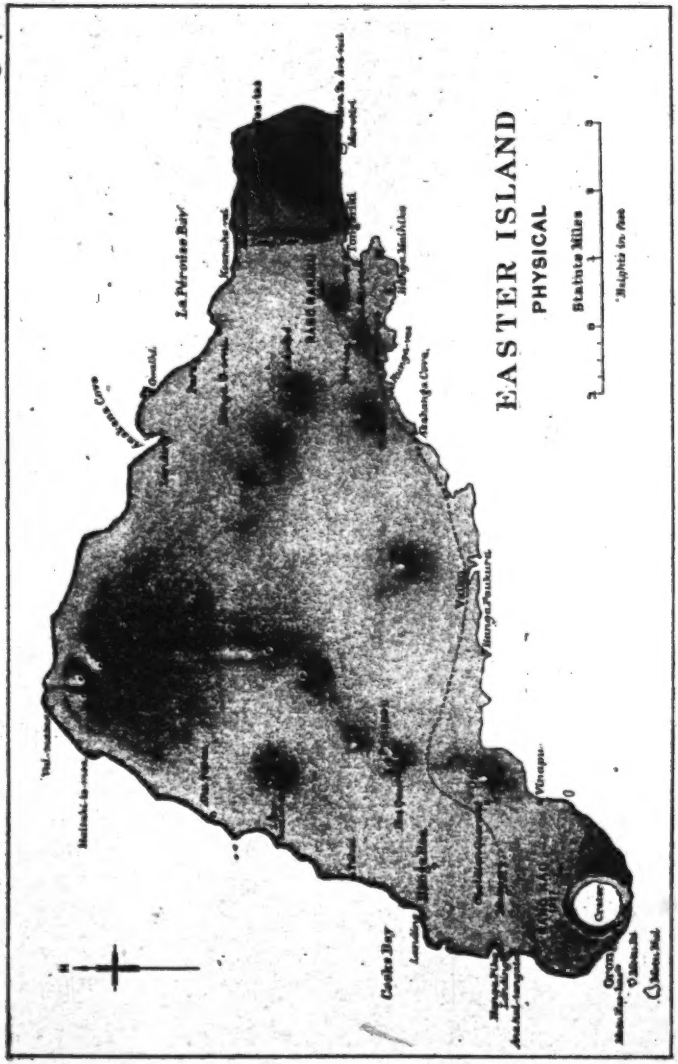

FIG. 1.

12: Routledge E-5 (1914-1915) 1920
OY2 Easter Islanders OY2

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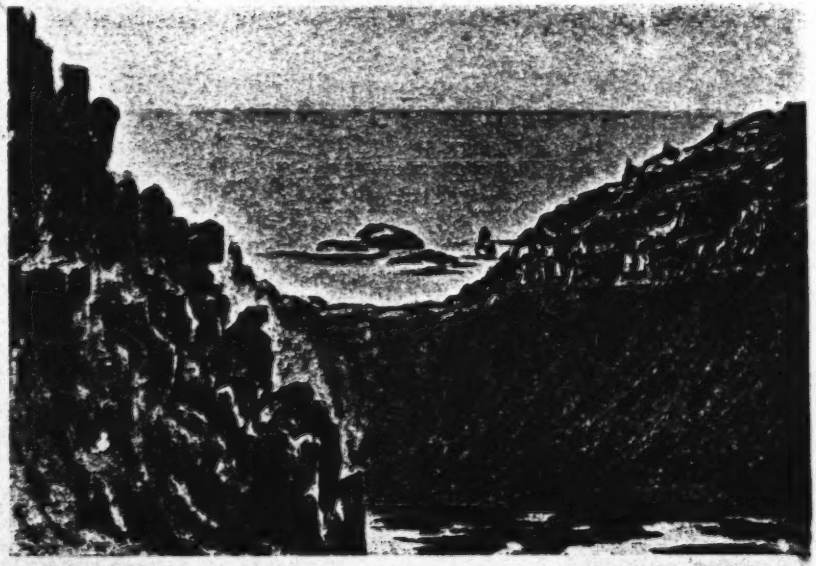
1. RANO KAO FROM ISLET OF MOTU NUI.



2. CRATER OF RANO KAO, ORONGO ON THE RIGHT (SKETCH)

SURVEY OF VILLAGE AND CARVED ROCKS OF ORONGO.

[p. 449a]

12: Routledge E-5 (1914-1915) 1920
OY2 Easter Islanders OY2

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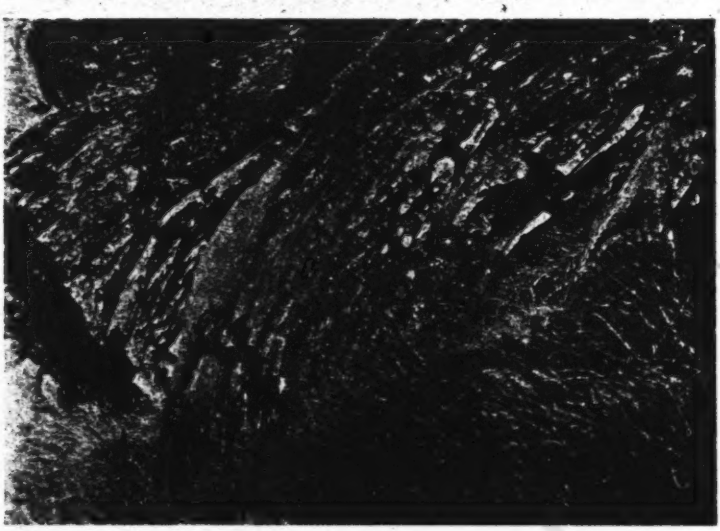

1. GEOLOGICAL SECTION SHOWING CURVED JOINTING IN ROCK USED AS CAPSTONES OF HOUSES.

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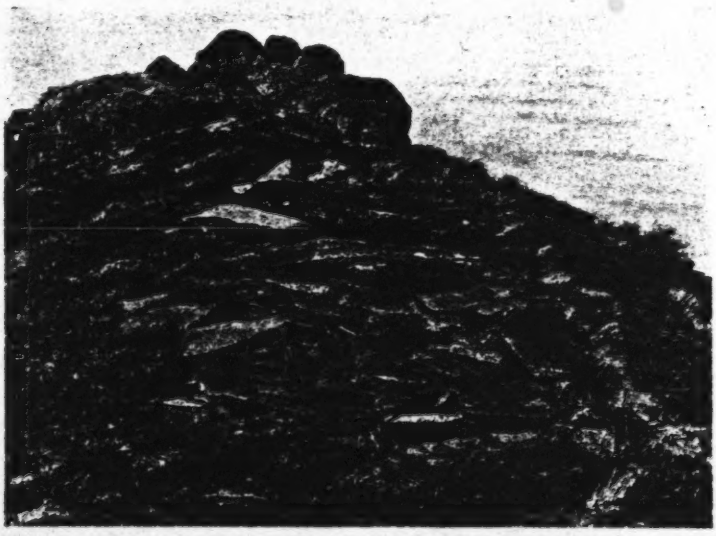

2. CAPSTONES OF HOUSES IN POSITION.

SURVEY OF VILLAGE AND CARVED ROCKS OF ORONGO.

[p. 444 c]

13: Routledge E-5 (1914-1915) 1917
OY2 Easter Islanders OY2

794 the Marama clan set fire to the house of the head of the
614 Miru clan because the Miru had given the coveted distinction
554 to the Ngaure instead of to his own people. An aggrieved
[578] clan had its remedy through war.[1] The Mata-toa when taking part in the bird ceremonies are spoken of as the "Ao," thus "Miru te Ao" signifies that the Miru were the celebrants that year; the same name is given to an
[592] actual object in the shape of a large paddle used in dancing, the handle of which was adorned with a human face.
133 The island is triangular in shape, with its apex to the
794 north, and the bird ceremonies were especially connected
361 with the western angle. This portion is formed by an extinct volcano known as Rano Kao, and in October the Mata-toa, or a certain number of them, men, women and children, took up their abode in a number of houses at the foot of the mountain on the landward side. The place is called Mataveri and the removal there was known as "Kaho Mataveri ki te Ao," or "to go to Mataveri for
794 the Ao." The houses were made after the fashion of the
342 island, as a superstructure of sticks and reed on a boat-
266 shaped foundation of stone, and here great cannibal feasts were held; tradition relates that so big were the houses that one of the victims escaped by hiding in an extreme end. Similar gruesome feasts took place to the accompaniment of breaking waves in a sea cave near at hand, which still bears the name of "Ana-kai-tangata," or
[532] "Cave eat man"; the roof is covered with paintings of birds in red and white pigment, one of which is superimposed on a drawing of a European ship and cannot,
794 therefore, be earlier than the eighteenth century. For

[113] [1] Since writing the above Dr. Corney has located the interesting accounts of the first missionaries, published in *Annales de la Propagation de la Foi*. Their knowledge of the Bird cult is vague, but they were specially impressed with the tumult which resulted between different parties after the finding of the egg in the month of September. It must be remembered that their acquaintance with the island was subsequent to the disorganization caused by the Peruvian raid.

13: Routledge E-5 (1914-1915) 1917
OY2 Easter Islanders OY2

the bird celebrations, in addition to a particular dress and hat, the men carried the "ao" and the women wore the "remiro," a breast ornament only used by a woman whose husband was of the Mato-toa. The wooden images, "moai toromiro," were hung around the neck. A function connected with the young birds took place in October or November, but will be more conveniently spoken of later.

In July the Ao left Mataveri and wound their way up to the top of the mountain by a track still just traceable and known as "the road of the Ao." Rano Kao is some thirteen hundred feet in height and has a crater about a mile in width; the landward side is a grassy slope, but the three sides which are surrounded by sea have been gradually eroded till they form a steep and precipitous cliff of about one thousand feet. So far has this erosion proceeded that the sea has nearly worn its way into the crater itself, which is at the present time only separated from it by a wall of rock along which it would be feasible but not easy to walk. In this process of attrition some harder portions of rock have been left and form three little islands lying off the coast. Standing on the western extremity of the mountain with the narrow ridge immediately on the left, the crater behind and the cliff in front, these islets are seen far below, always girdled with breaking surf from the swell of the Pacific, which here extends in an unbroken sweep to the Antarctic. To-day no sound is heard save the cries of the sea birds as they circle round these their habitations.

The company of the Ao proceeded by the western side of the crater along its ever-narrowing summit till this spot on the cliff was reached, which is known as Orongo. Here houses were again awaiting them, but unlike those at Mataveri they were constructed of stone laminae, lined and roofed with slabs and covered with earth; such structures were obviously more suitable for so windy a spot than those made of reeds. The entrance, which is always toward

13: Routledge E-5 (1914-1915) 1917
OY2 Easter Islanders OY2

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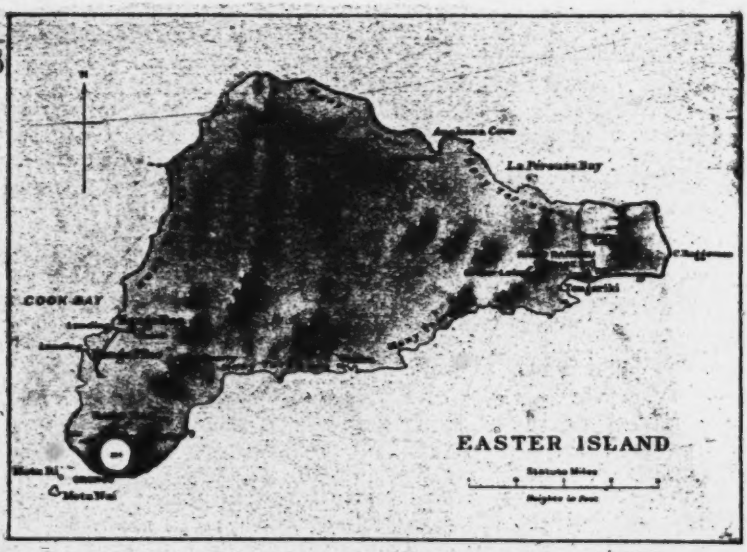

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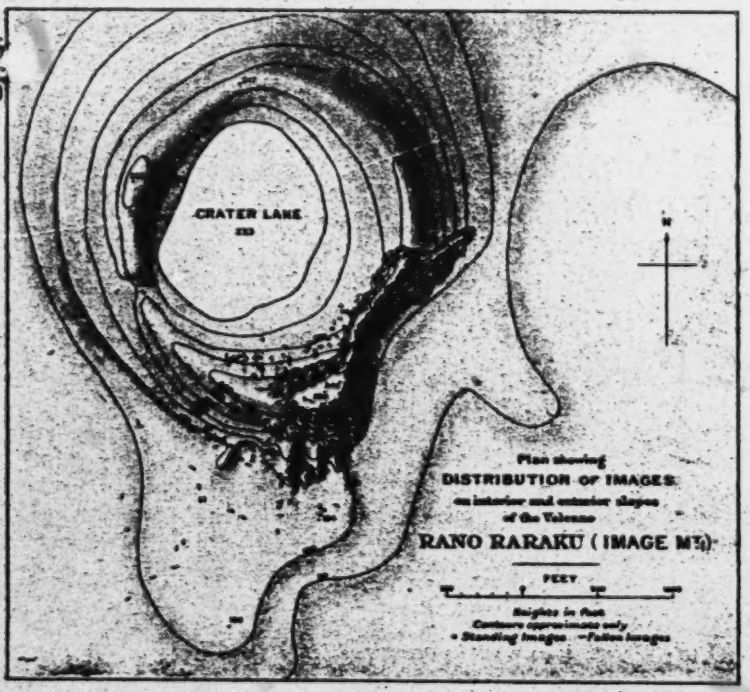

EASTER ISLAND 1/14,000

(Reprinted by permission from the "Geographical Journal")

[facing p. 344]

13: Routledge E-5 (1914-1915) 1917
OY2 Easter Islanders OY2

These men, who were known as "hopu," went to the islet when the Ao went up to Orongo or possibly rather later, Each made up his provisions into a "pora," or securely bound bundle of reeds, he then swam on the top of the packet, holding it with one arm and propelling himself with the remaining arm and both legs. An incantation, which was recited to us, was said by him before starting. In one instance, the iviatua, at the same time that he gave the nomination, prophesied that the year that it was taken up a man should be eaten by a large fish; the original recipient never availed himself of it, but on his deathbed told his son of the prophecy. The son, Kilimuti, undeterred by it, entered for the race and sent two men to the islet; one of them started to swim there with his pora but was never heard of again, and it was naturally said that the prophecy had been fulfilled. Kilimuti wasted no regret over the eventuality, obtained another servant and secured the egg; he died while the Expedition was on the island. The islet of Motu Nui is, as its name signifies, the largest, and is also the outermost of the three islets which lie off the coast of Rano Kao. It can only be reached in fine weather, and even then it is no easy matter to gain the particular ledge of rock where landing has to be made on the crest of a wave before the sea again retreats boiling and surging many feet below. Once landed, however, the surface is comparatively level and presents no difficulties. It is about five acres in extent and is covered by coarse grass which almost conceals the entrance to the cave in which the hopu lived while awaiting the coming of the birds; the inside however is light and airy; it measures nineteen feet by thirteen, with a height of over five feet, and conspicuous among other carvings in the centre of the wall is a large ao more than seven feet in length. A line dividing the islet between Kotuu and Motu-iti passed through the centre of the cave, and the hopu are said to have formerly kept to their respective

13: Routledge E-5 (1914-1915) 1917
OY2 Easter Islanders OY2

another carving, a small design which is also very frequent, still survives and corroborates this by analogy; within living memory it was the custom for women of the island to come up here and be immortalized by having one of these representations cut on the rock by a professional expert. We know therefore that conventional forms were used as memorials of certain definite persons.[1]

The bird-man, having obtained the egg, took it in his hand, palm upwards, on a piece of tappa and danced with a rejoicing company down the slope of Rano Kao and along the southern coast. This procedure, which is known as "haka epa," or "make shelf," from the position of the hand with regard to the egg, was continued till the party reached Rano Raraku, the mountain especially connected with the images. This mountain is at the south-east end of the island, some ten miles distant from Rano Kao; it resembles the latter in being an extinct volcano with a crater lake, but stands back a mile from the coast and is only about 500 feet in height; its shape is that of a shallow vessel of which the base is larger than the brim.[2] On the south side of the mountain, towards the summit, are extensive workings in which lie scores of images in every stage of evolution. These quarries are both within the crater and outside, and below them, on the debris and detritus, a large number of the figures have been set up. Amongst the statues thus placed on the exterior slope, most of which are still standing, there is shown at the south-west corner the foundations of a house. This is the point which would first be approached from the southern coast, and in this house the bird-man remained

[1] This figure with that of the bird-man and the ao are all roughly carved on the back of the statue at the British Museum. They appear to be later workmanship than the raised ring and girdle to which allusion is made below. Unfortunately, the light in the portico is bad.

[2] The word "Rano" signifies a crater lake. It is, according to Turner, Malagasy for water, but is only used in Easter Island in the restricted sense.

13: Routledge E-5 (1914-1915) 1917
OY2 Easter Islanders OY2

for a year, five months of which were spent in strict taboo. The egg which was still kept on tappa was hung up inside the house and blown on the third day, a morsel of tapa being put inside. The victor did not wash and spent his time in "sleeping all day, only coming out to sit in the shade." His correct head-dress was a crown made of human hair; it was known as "hau oho," and if it was not worn the "spirits would be angry."

The house was divided into two, the other half being occupied by a man, who was called an iviatua, but was of an inferior type from the one gifted with prophecy and apparently merely a poor relation of the hero; there were two cooking places, as even he might not share that of the Bird-man. Food was brought as gifts, especially the first sugar-cane, and these offerings seem to have been the sole practical advantage of victory; those who did not contribute were apt to have their houses burnt. The Bird-man's wife came to Raraku but dwelt apart, as for the first five months she could not enter her husband's house nor he hers on pain of death. A few yards below the bird-house is an "ahu" or burial place; it consists merely of a low rough wall built into the mountain with the ground above levelled and paved; it was reserved for the burial of bird-men; corpses in Easter Island were frequently exposed, not buried, but a bird-man was an uncanny person whose ghost might do unpleasant things, he was safer hidden under stones. The name Orohié is given to the whole of this corner of the mountain with its houses, its ahu and its statues. As the Bird-man gazed lazily forth from the shade of his house there stretched away in front of him the low rocky coast marked by a white line of surf and ending in the swelling side and precipitous cliff of Rano Kao, the scene of his triumph. Above him, as he sat there, were the quarries with their unfinished work, below him were the bones of his dead predecessors, while on every hand giant images stood

14: Routledge E-5 (1914-1915) 1917
OY2 Easter Islanders OY2

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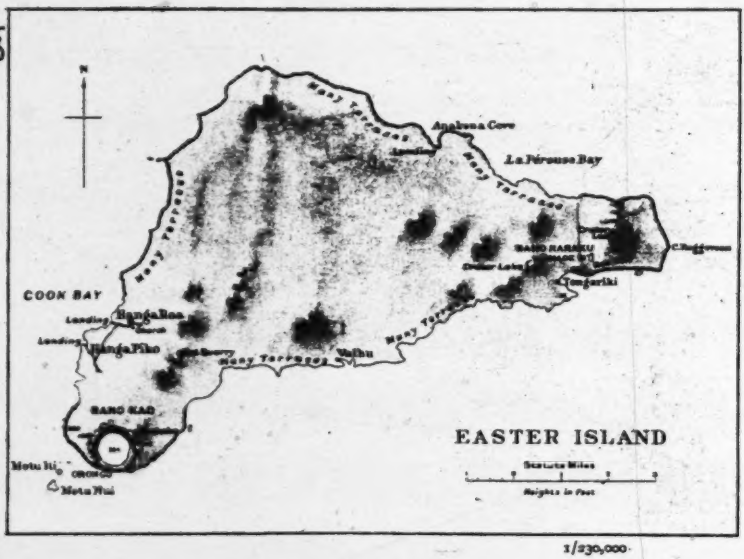

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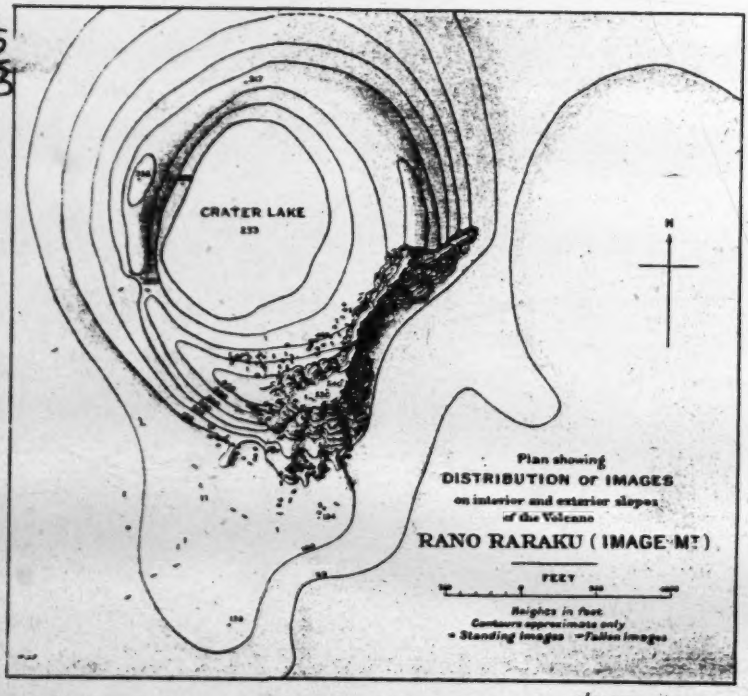

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EASTER ISLAND

[facing p 321]

14: Routledge E-5 (1914-1915) 1917
OY2 Easter Islanders OY2

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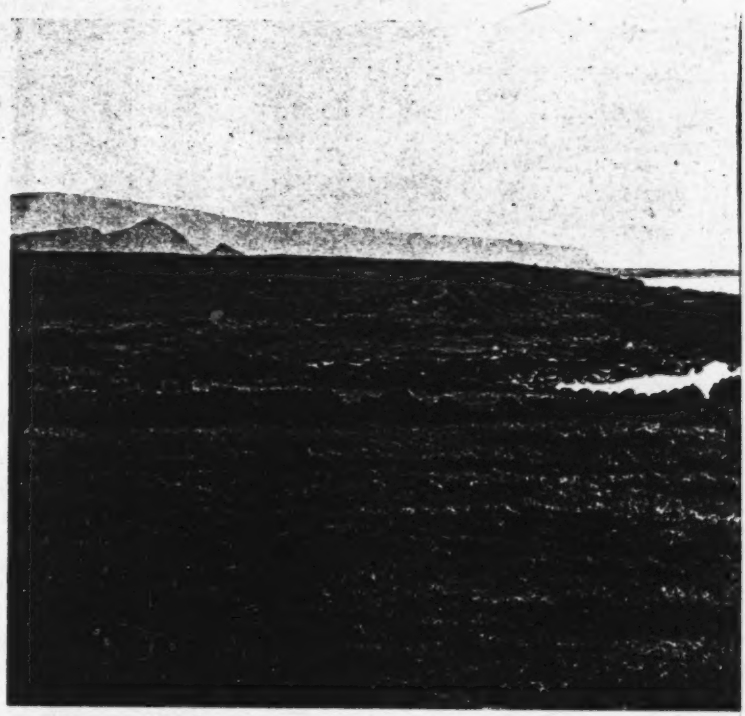

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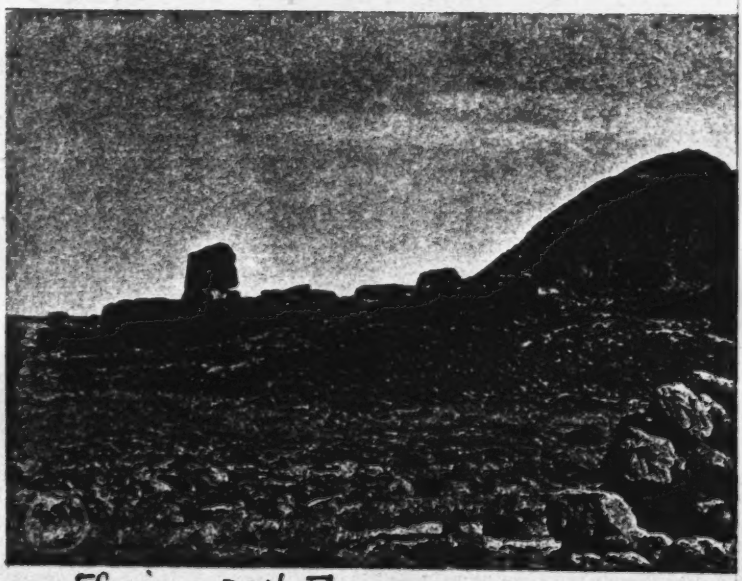

[facing p. 324 a]

GREAT AHU OF TONGARI

14: Routledge E-5 (1914-1915) 1917
OY2 Easter Islanders OY2

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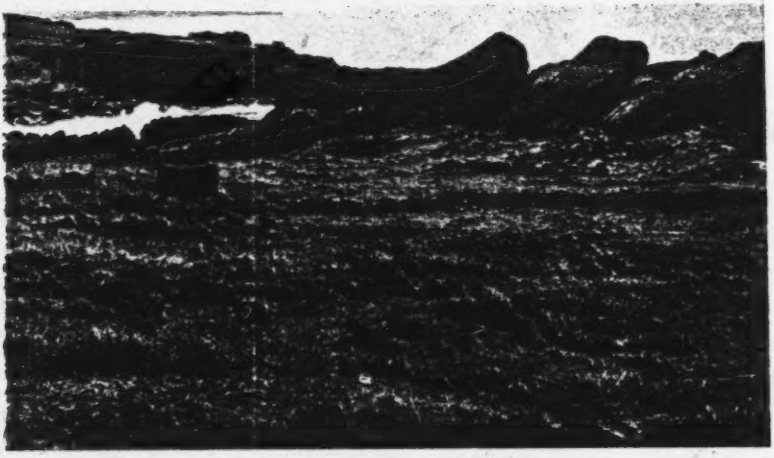

A TYPICAL AHU FROM LANDWARD, WITH IMAGES ON THEIR FACES A

AHU OF TONGARIKI FROM SEAWARD WITH BASES OF FALLEN IMAGES. SOUTH

[facing p. 324k]

14: Routledge E-5 (1914-1915) 1917
OY2 Easter Islanders OY2

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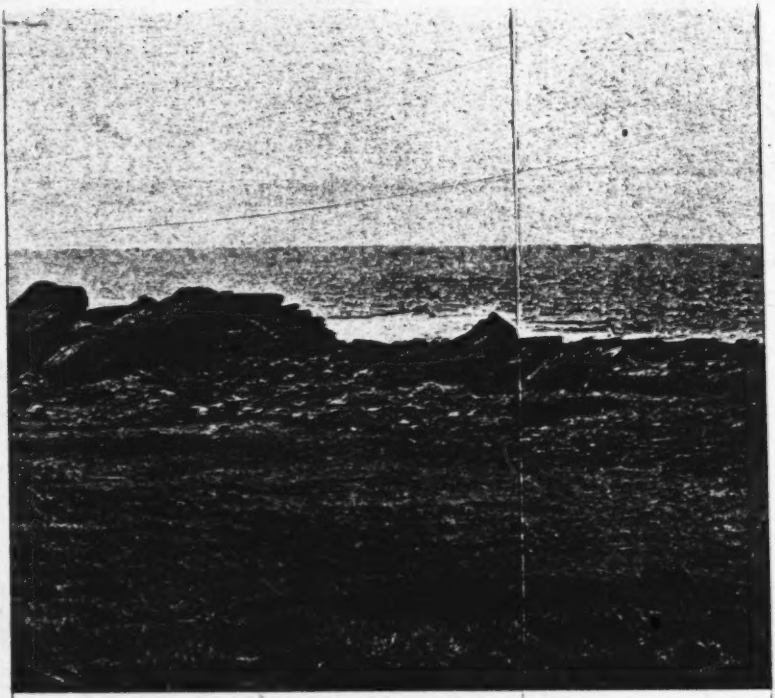

ON THEIR FACES AND "HAT" IN FOREGROUND

LEN IMAGES. SOUTH-EAST FACE OF RANO RARAKU IN DISTANCE

[facing p. 324c]

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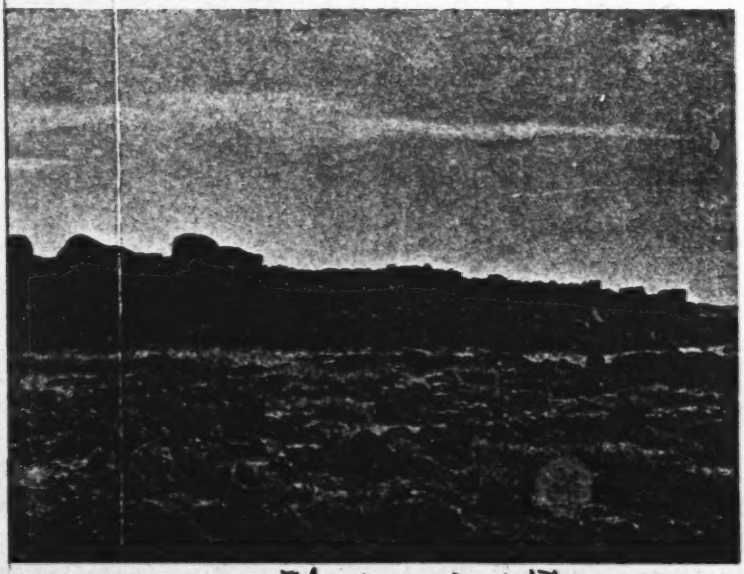
ROUND



RARAKU IN DISTANCE

[facing p. 324d]

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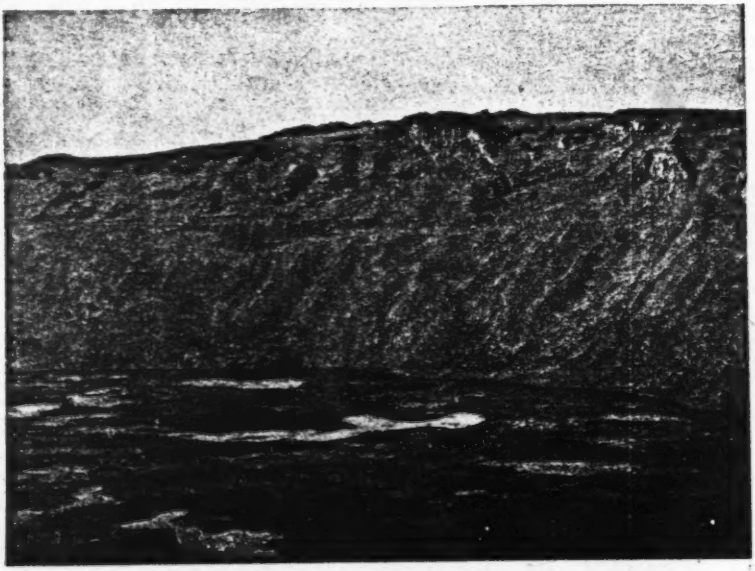

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[facing p. 325a]

RANO R

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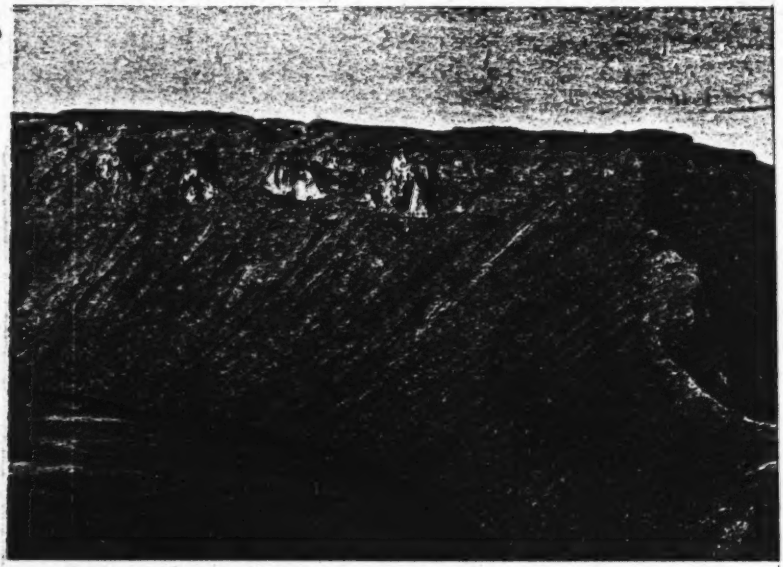

CRATER LAKE, RANO KAO; ORONGO VILLAGE AND SCULPTURED

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532

RANO RARAKU: IMAGES PROSTRATE IN FOREGROUND AND ERECT O

[facing p. 325 b]

●133

AND SCULPTURED ROCKS ON RIGHT

133
532

UND AND ERECT ON SLOPE: QUARRIES ABOVE

[facing p. 325C]

133

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S ABOVE

[facing p. 325d]

14: Routledge E-5 (1914-1915) 1917
OY2 Easter Islanders OY2

impossible for him to rejoin us. He went back later to England, and fell in the service of his country in September 1915. The *Mana* returned to Juan Fernandez and waited there till the fear of further cases developing on board had passed. The island is strikingly beautiful, with high mountains, deep gorges, and wonderful vegetation. It has a few score inhabitants under the charge of one old gentleman as magistrate and some four gendarmes. Here the *Dresden* sought refuge after the battle of the Falkland Islands, and when found by our navy claimed that she was interned. The chief celebrity connected with the place is of course the renowned Alexander Selkirk. His cave is shown and also his look-out point on the crest of the dividing ridge of the island.

From Juan Fernandez we sailed westward for three weeks, and at length in the grey dawn of March 29 Easter Island was sighted. It was thirteen months since we had left Southampton, of which we had been 147 days under way. As our goal at last hove in view a hush fell over the party, broken by the despairing voice of the ship's cook, "I don't know how I am expected to make a fire on that island; there is no wood." He spoke the truth. Easter Island has probably never had much more than brushwood and shrubs; but to-day it is used as a cattle ranch by a Chilean Company, and even that vegetation has disappeared.

The island is of recent volcanic formation, triangular in shape and curiously symmetrical. The highest ground is in the northern angle where an extinct volcanic mass rises to 1700 feet. Both the eastern and western angles are also formed by old volcanoes. At these high points erosion has caused imposing vertical cliffs on the seaward side; elsewhere the shoreline consists of low cliffs only, rising to not more than 50 to 100 feet above sea-level. The main portion of the island is composed of sheets of lava in process of disintegration, across which walking is almost impossible, and riding a very slow process. It is diversified at intervals by cones of volcanic ash some hundreds of feet in height, each with its own small crater. Grass covers the whole area, sprouting up on the lower ground between the masses of lava and covering the hills in such manner as to give them a down-like appearance. A few of the craters have lakes, but there is not one surface stream, and the water-supply is a great difficulty. There is no safe anchorage, and after the *Mana* had landed the shore party and stores she was sent back to Chile for mails and fresh provisions. She made altogether seven trips between Easter Island and the mainland, covering in these passages alone 14,800 nautical miles.

The shore party consisted at this time of our two selves, Lieut. Ritchie, the yacht's engineer, who was also photographer, the cook, and for a short while a Chilean boy from Juan Fernandez. Our experiences on the island were of a more exciting nature than had been anticipated, but as they have already been told they need only brief mention now.

The native population is of Polynesian race, and numbers at the present time about 250. They are confined to the district on the western

14: Routledge E-5 (1914-1915) 1917
OY2 Easter Islanders OY2

structure contains vaults in which the bones of the dead were buried, and its surface was used for the exposure of corpses, which were wrapped in matting and supported on sticks. On the top of the centre wall is a level platform on which stood the images, each supported on a stone slab or pedestal. They had their backs to the sea and looked inland over the corpses and bones of the dead. No complete statue is now standing on its bed-plate. Luckily however the lower portion of one still remains *in situ* on the terrace of Tongariki. The images have generally fallen forward, and, in the best preserved instances, lie in a row on their faces; but in a few cases one may be seen lying on its back toward the sea. Some have been considerably damaged in the fall, but not a few are intact. It has been suggested that the images were thrown down by an earthquake. This possibility was carefully borne in mind, but nothing was found to confirm such an idea. It seems, on the other hand, certain that they were deliberately overthrown by the victor in tribal wars, and that this was accomplished by removing stones underneath the pedestals on which they stood.

The images never varied in their general characteristics, and the best idea of them can be gained from the one brought to England in 1868 by H.M.S. *Topaze*, which now stands in the porch of the British Museum. It is a half figure cut off at the termination of the trunk, and with the arms placed so that the hands nearly meet in front of the body. Careful study on the island made clear that it portrays not a standing figure but a sitting one. The length of the ears shows that the statues represent a people whose custom it was to extend the lobe: and this is one of the few clues to their history. A perfect idea of the hands can be obtained only by excavation of unweathered specimens.

Some of the images on the terraces have been more than 30 feet in height, but from about 12 feet to 18 or 20 feet are more usual measurements. The crowns on the heads of the statues were about 5 feet in height, and were made of a different stone—a red volcanic ash obtained from the centre of the island, where a small crater stands on the side of a larger volcano. A few unfinished hats still remain inside this crater, but a larger number are found on the side of the hill or on the low ground at its foot. They may have been in the course of removal to the terraces when the work was stopped. The crowns found here are nearly cylindrical in form; the work must therefore have been finished on the terraces, for the completed hat has a knob on the top and a hollow on the lower side where it fitted on the head of the image. This depression is not in the centre, but leaves a larger brim to project over the eyes, an arrangement noted by the earlier voyagers, who studied the question how the hat maintained its balance.

The statues were made in the quarry of Rano Raraku, an old volcano which stands alone at the eastern end of the island near the south coast. This is the most interesting place in the island. It was unfortunately never

14: Routledge E-5 (1914-1915) 1917
OY2 Easter Islanders OY2

visited by any of the early voyagers, and we therefore ask in vain whether work was or was not being continued in it when their ships lay so near it. For three-fourths of its circumference the wall which surrounds the crater is symmetrical; it slopes with an even gradient on the outside to the surrounding plain and on the inside to the interior lake, while several carriages could be driven abreast along the blunt crest. The fourth part of the wall, that nearest the sea, is however radically different. It is higher than the remainder, rising to about 500 feet, and on the outside has a vertical wall of rock with a steep bank of detritus at its foot. A gap in the western side forms the easiest approach to the crater. It is either artificial or is a natural gap enlarged. The quarries are on the south-west portion of the mountain, which consists here of compressed volcanic ash which encloses numerous lapilli of metamorphic rock. It was this composition which gave to the early voyagers the impression that the rock was artificial. This stone has been worked both inside the crater and on the outer slope. In the quarries the statues may be seen not by units but by scores at every stage of completion, left precisely as they were when the work was stopped and the workmen laid down their tools. A large figure catches the eye, and on a shelf above is another nearly completed. As the visitor gazes the walls on either side transform themselves into partially finished giants, and a glance downwards shows that his foot is resting on a mighty face. In the early morning or as the sun goes down the silent figures seem like effigies of the mighty dead, and the place to be alive with the spirits of those who made them. There are in all about 150 partially finished statues. A diagram was made on which the position of every one was shown, and each was measured and described. This large number of statues in the quarry itself is very interesting and requires explanation. Some have evidently been abandoned owing to a flaw in the stone or for some other technical reason; but the question naturally arises whether they were all intended to be removed. More than once when at first evidence pointed to a figure or group of figures being designed to remain in their position, a similar neighbour has been found undercut, or an empty niche next door from which one has obviously been taken away. At the same time it seems fairly clear that some were rock-carvings only. The largest in the quarry, for example, measures 68 feet in length as against the 33 feet of the largest found outside. It seems difficult to suppose that the removal of this was even projected.

It is easy to trace the stages by which the images were completed and removed. Around a figure is a gangway in which the workers have stood, and frequently the standing place of each man can be seen, so that we know how many were at work on each side. The figure was chiselled out lying on its back, and it was then undercut till it assumed the form of a boat on its keel. The keel was then cut away and it was supported by stones. One statue can be seen actually in process of removal from its niche, and it has either been fractured in the process or else has been

15:Routledge E-5 (1914-1915) 1919
OY2 Easter Islanders OY2

Rano Raraku. Ahu Kia-ori-ori. Ahu Akahanga.

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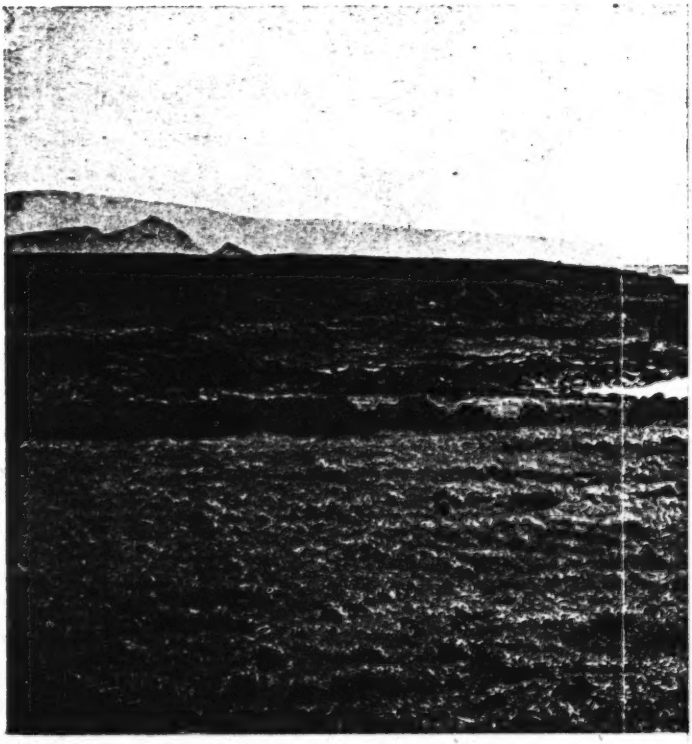

[facing p. 166-A(2)]

15:Routledge E-5 (1914-1915) 1919
OY2 Easter Islanders OY2

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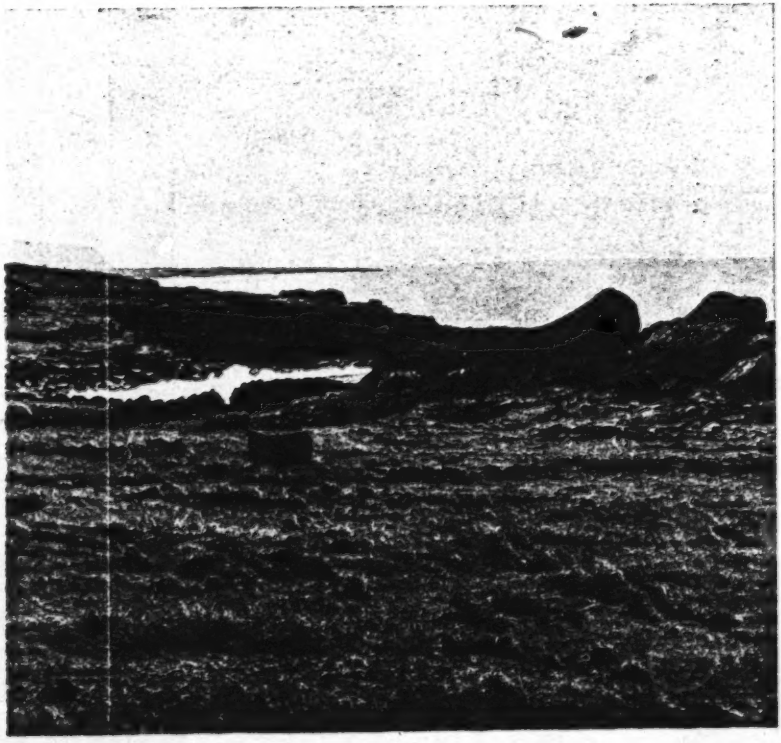

AKAHANGA COVE AND NEIGHBOU

[facing p. 166 - A(b)]

15:Routledge E-5 (1914-1915) 1919
OY2 Easter Islanders OY2

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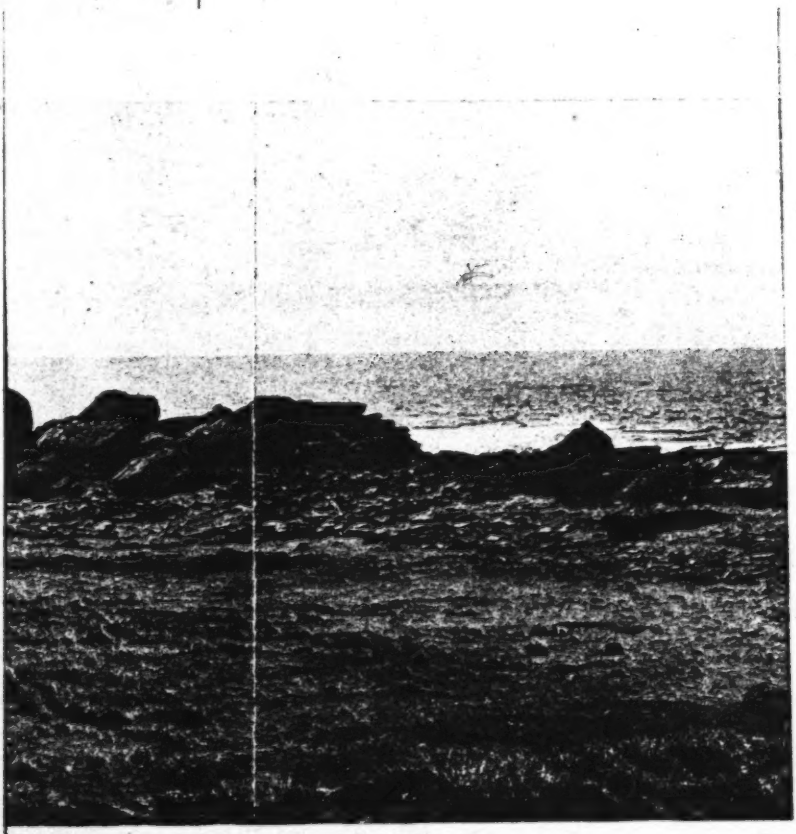
Abu Hari-o-ava.



WE AND NEIGHBOURING AHU.

[facing p. 166 A(c)]

15:Routledge E-5 (1914-1915) 1919
OY2 Easter Islanders OY2

FIG. 32.

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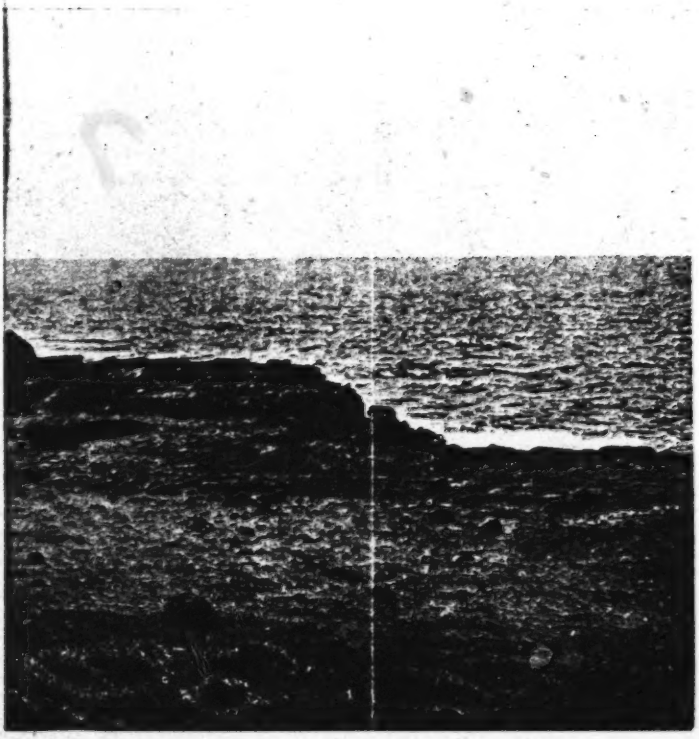

[facing p. 166 – A(d)]

15:Routledge E-5 (1914-1915) 1919
OY2 Easter Islanders OY2

Portion of an image still standing.

133
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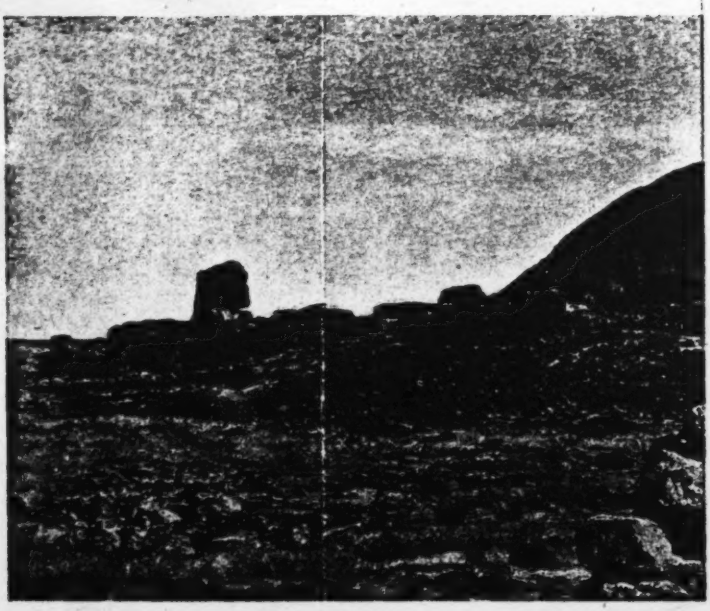
172



(A modern

166A)

[facing p. 166-B(a)]

15:Routledge E-5 (1914-1915) 1919
OY2 Easter Islanders OY2

Rano Raraku, S.E. face.

133
764
172

(A modern wall.)

AHU TONGARIKI, SEAWARD SI

[facing p. 166-B(b)]

115 Routledge E 5 (1914-1915) 1919
OY2 Easter Islanders OY2

Row of fallen images.

133
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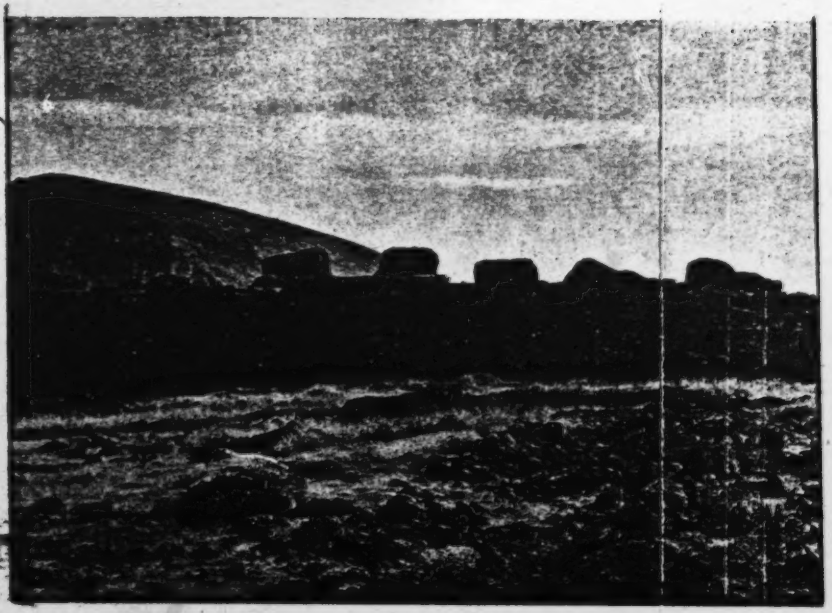
172



GARIKI, SEAWARD SIDE.

[facing p. 166-B(c)]

15:Routledge E-5 (1914-1915) 1919
OY2 Easter Islanders OY2

FIG. 33.

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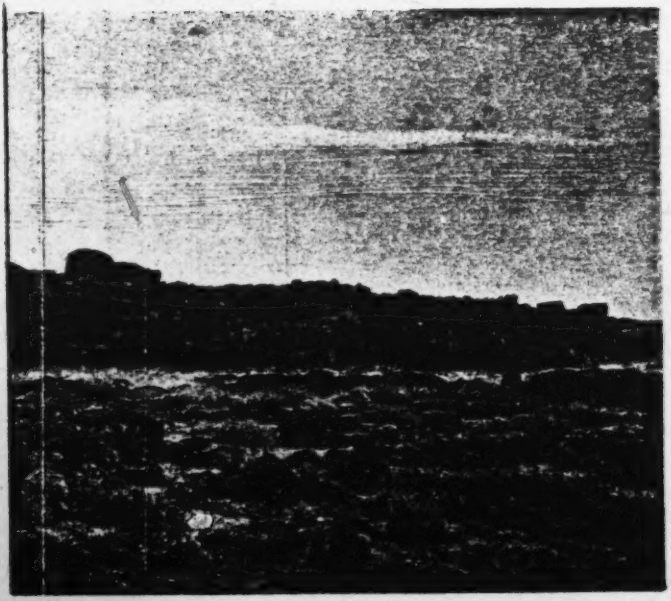
764



[facing p. 166-B(d)]

15:Routledge E-5 (1914-1915) 1919
OY2 Easter Islanders OY2

Head on its back.

133
532

[Facing p. 166 — C (a)]

15:Routledge E-5 (1914-1915) 1919
OY2 Easter Islanders OY2

Head on its back. Body of statue on its front.

133
532

AHU TONGARIKI, LANDWARD
With fifteen fallen statues.

[facing p. 166 - C(b)]

15:Routledge E-5 (1914-1915) 1919
OY2 Easter Islanders OY2

● 133
532

NGARIKI, LANDWARD SIDE.
In fifteen fallen statues.

[facing p. 166-C ©]

15:Routledge E-5 (1914-1915) 1919
OY2 Easter Islanders OY2

FIG. 34.

133
532

Portion of an image still standing.

Crown or hat.

For distant view, see fig. 73.

[facing p. 166-C(a)]

15:Routledge E-5 (1914-1915) 1919
OY2 Easter Islanders OY2

133●

FIG. 45.

RANO RARAKU FROM THE SEA

174D]

[facing p. 174 (E)]

15:Routledge E-5 (1914-1915) 1919
OY2 Easter Islanders OY2

133
764
316

3748]

[facing p. 174 (F-1)]

15:Routledge E-5 (1914-1915) 1919
OY2 Easter Islanders OY2

133
764
316

RANO RARAKU FROM THE SOUT
Images prostrate in foreground and erect on slop

[facing p. 174 (F-2)]

15:Routledge E-5 (1914-1915) 1919
OY2 Easter Islanders OY2

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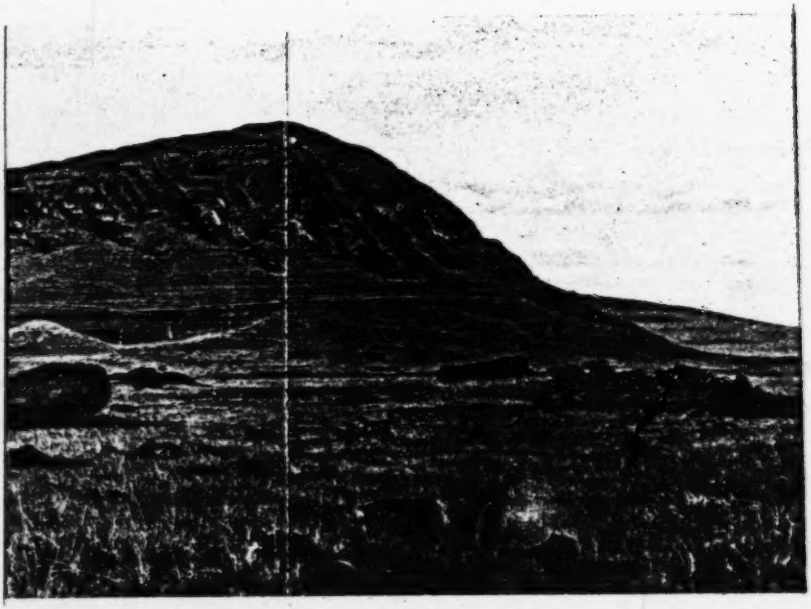

RAKU FROM THE SOUTH-WEST.
foreground and erect on slope; quarries above.

[facing p. 174 (F-3)]

15:Routledge E-5 (1914-1915) 1919
OY2 Easter Islanders OY2

FIG. 46.

133
764
316

[facing p. 174 (F-4)]

15:Routledge E-5 (1914-1915) 1919
OY2 Easter Islanders OY2

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[facing p. 174 (G-1)]

15:Routledge E-5 (1914-1915) 1919
OY2 Easter Islanders OY2

●133
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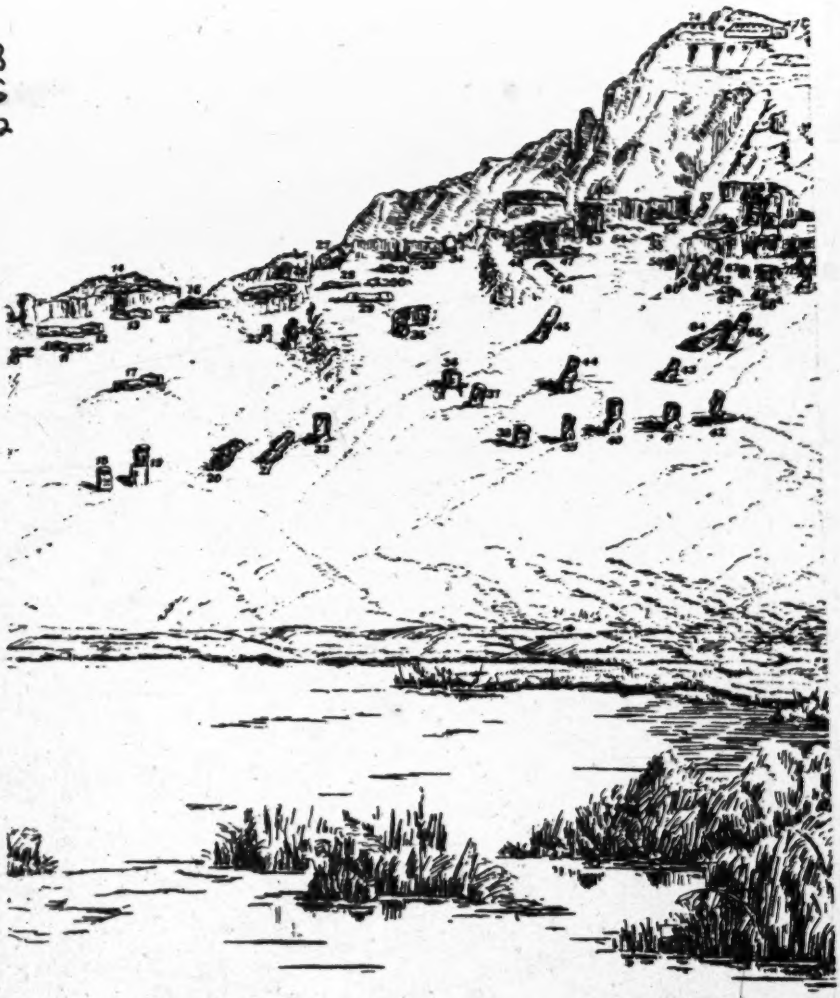

RANO RARAKU, INTERIOR OF CRATER.

Diagrammatic sketch showing position of statues on slope and i

[facing p.174 (G-2)]

15:Routledge E-5 (1914-1915) 1919
OY2 Easter Islanders OY2

133
316
532

TERIOR OF CRATER.
ion of statues on slope and in quarry

[Facing p. 174 (G-3)]

15:Routledge E-5 (1914-1915) 1919
OY2 Easter Islanders OY2

● 133
316
532

FIG. 47.

[facing p. 174 (G-4)]

15:Routledge E-5 (1914-1915) 1919
OY2 Easter Islanders OY2

CHAPTER XIV

PREHISTORIC REMAINS (*continued*)

STATUES AND CROWNS

Rano Raraku, its Quarries and Standing Statues—the South-east Face of the Mountain—Isolated Statues—Roads—Stone Crowns of the Images.

STRANGE as it may appear, it is by no means easy to obtain a complete view of a statue on the island: most of the images which were formerly on the ahu lie on their faces, many are broken, and detail has largely been destroyed by weather. Happily, we are not dependent for our knowledge of the images on such information as we can gather from the ruins on the ahu, but are able to trace them to their origin, though even here excavation is necessary to see the entire figure. Rano Raraku is, as has already been explained, a volcanic cone containing a crater-lake. It resembles, to use an unromantic simile, one of the china drinking-vessels dedicated to the use of dogs, whose base is larger than their brim. Its sides are for the most part smooth and sloping, and several carriages could drive abreast on the northern rim of the crater, but towards the south-east it rises in height, and from this aspect it looks as if the circular mass had been sliced down with a giant knife forming it into a precipitous cliff. The cliff is lowest where the imaginary knife has come nearest to the central lake, thus causing the two ends to stand out as the peaks already mentioned (fig. 45).

The mountain is composed of compressed volcanic ash, which has been found in certain places to be particularly suitable for quarrying; it has been worked on the southern exterior slope, and also inside the crater both on the south and south-eastern sides. With perhaps a dozen exceptions, the

15:Routledge E-5 (1914-1915) 1919
OY2 Easter Islanders OY2

133 316 whole of the images in the island have been made from it, and they have been dragged from this point up hill and down dale to adorn the terraces round the coast-line of the island; even the images on the ahu, which have fallen into the sea on the further extremity of the western volcano, are said to have been of the same stone. It is conspicuous in being a reddish brown colour, of which the smallest chips can be easily recognised. It is composite in character, and embedded in the ash are numerous lapilli of metamorphic rock. Owing to the nature of this rock the earliest European visitors came to the conclusion that the material was factitious and that the statues were built of clay and stones; it was curious to find that the marooned prisoners of war of our own time fell into the same mistake of thinking that the figures were "made up."

The workable belt, generally speaking, forms a horizontal section about half-way up the side of the mountain. Below it, both on the exterior and within the crater, are banks of detritus, and on these statues have been set up; most of them are still in place, but they have been buried in greater or less degree by the descent of earth from above (fig. 57). Mr. Ritchie made a survey of the mountain with the adjacent coast, but it was found impossible to record the results of our work without some sort of plan or diagram which was large enough to show every individual image. This was accomplished by first studying [126] each quarry, note-book in hand, and then, with the aid of field-glasses, amalgamating the results from below; the standing statues being inserted in their relation to the quarries above. It was a lengthy but enjoyable undertaking. Part of the diagram of the exterior has been redrawn with the help of photographs (fig. 60); the plan of the inside of the crater is shown in what is practically its original form (fig. 47).

316 *Quarries of Rano Raraku.*—Leaving on one side for the moment the figures on the lower slope, let us in imagination scramble up the grassy side, a steep climb of some one or two hundred feet to where the rock has been hewn away into a series of chambers and ledges. Here images lie by the score in all stages of evolution, just as they were left when, for some unknown reason, the workmen laid down their tools for the last time and the busy scene was still. Here, as elsewhere, the wonder of the place can only be appreciated as the eye becomes trained to see. In the

15:Routledge E-5 (1914-1915) 1919
OY2 Easter Islanders OY2

172
133

FIG 79.

THE CRATER FROM WHICH THE HATS OF THE IMAGES WERE HEWN, ON THE SIDE OF THE HILL PUNAPAU.

Rano Kao in the distance.

[facing p. 198]

15:Routledge E-5 (1914-1915) 1919
OY2 Easter Islanders OY2

[133

FIG. 97.

ANAKENA COVE.
Hill on left has terraced summit.

241]

[facing p. 241]

15:Routledge E-5 (1914-1915) 1919
OY2 Easter Islanders OY2

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[facing p. 254 – A(a)]

15:Routledge E-5 (1914-1915) 1919
OY2 Easter Islanders OY2

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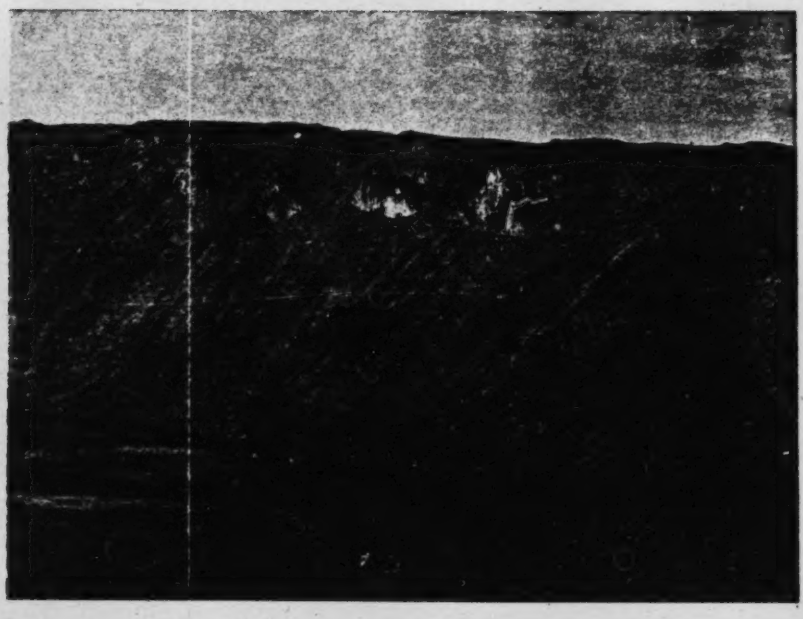


CRATER LAKE, RANO KAO: ORONGO VILLAGE AND SCULPTU

[facing p. 254 – A(b)]

15:Routledge E-5 (1914-1915) 1919
OY2 Easter Islanders OY2

●133

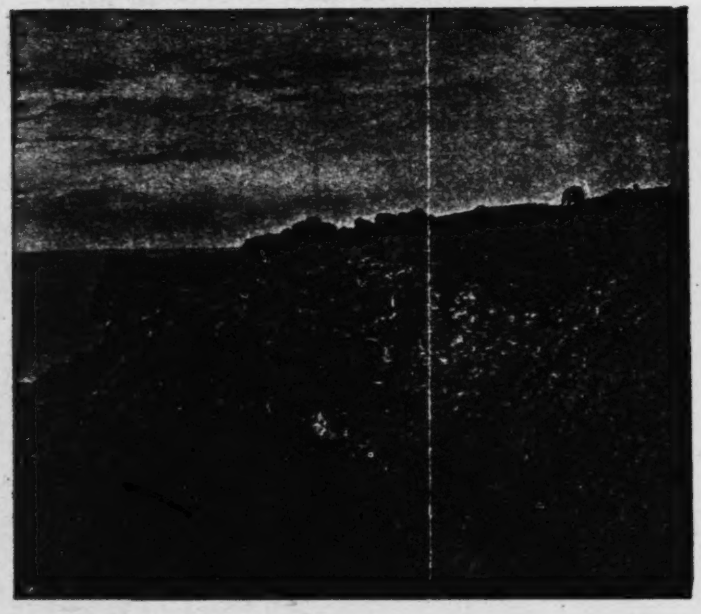
VILLAGE AND SCULPTURED ROCKS ON THE RIGHT.

[facing p. 254-A (c)]

15:Routledge E-5 (1914-1915) 1919
OY2 Easter Islanders OY2

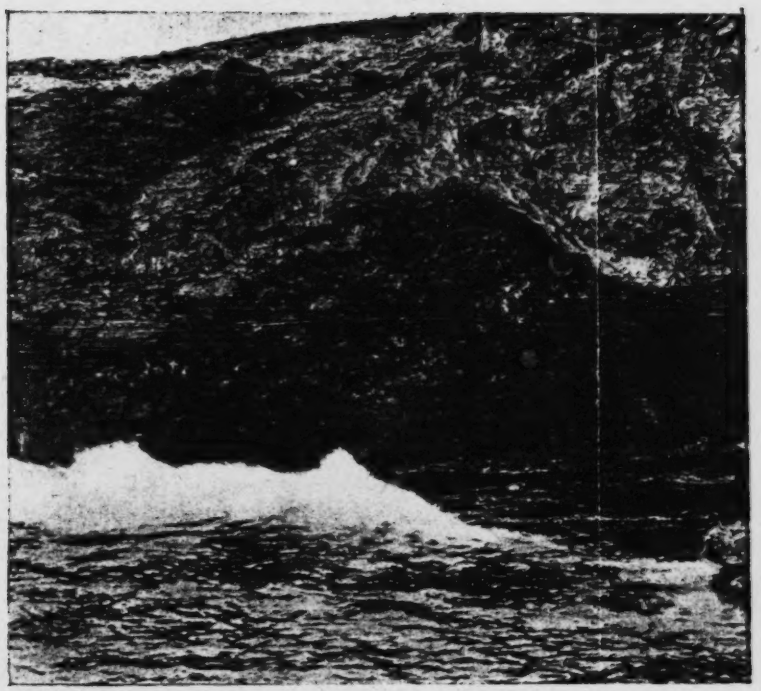
FIG. 100.

133



[facing p. 254-A(2)]

133



[facing p. 254-B(a)]

15:Routledge E-5 (1914-1915) 1919
OY2 Easter Islanders OY2

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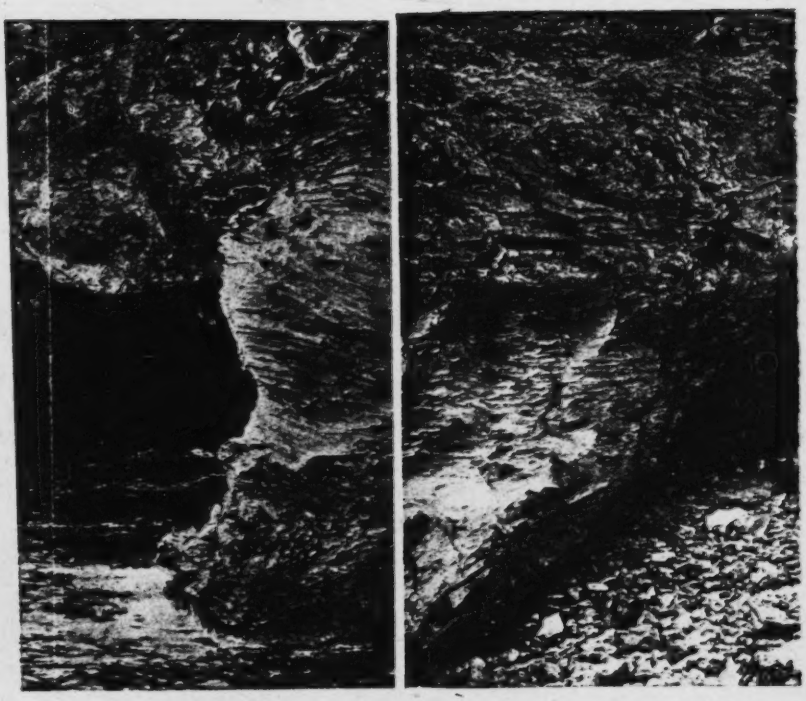


ANA KAI-TANGATA.
Cave on right, site of cannibal feasts during bird rites.

[facing p. 254-B(b)]

15:Routledge E-5 (1914-1915) 1919
OY2 Easter Islanders OY2

FIG. 101.

133

[facing p. 254-B(c)]

[254A

15:Routledge E-5 (1914-1915) 1919
OY2 Easter Islanders OY2

evolved the tablets there are two points worth noticing. Firstly, the Islanders are distinctly clever with their hands and fond of representing forms. Setting aside the large images, the carving of the small wooden ones is very good, and the accuracy of the tablet designs is wonderful. Then they have real enjoyment in reciting categories of words; for example, in recounting folk-tales, opportunity was always gleefully taken of any mention of feasting to go through the whole of the food products of the island. In the same way, if a hero went from one locality to another, the name of every place *en route* would be rolled out without any further object than the mere pleasure of giving a string of names. This form of recitation appears to affect them æsthetically, and the mere continuation of sound to be a pleasure. Given, therefore, that it was desired to remember lists of words, whether categories of names or correct forms of prayer, the repetition would be a labour of love, and to draw figures as aids to recollection would be very natural.

Nevertheless, the signs themselves have no doubt a history, which as such, even apart from interpretation, may prove to be signposts in our search for the origin of this mysterious people.

The Bird Cult

Knowledge of the tablets was confined to a few, and formed a comparatively small element of life in the island; the whole of social existence revolved round the bird cult, and it was the last of the old order to pass away. The main object of the cult was to obtain the first egg of a certain migratory sea-bird, and the rites were connected with the western headland, Rano Kao. Little has yet been said of this volcano, but, from the scenic point of view, it is the most striking portion of the island. Its height is 1,300 feet, and it possesses a crater two-thirds of a mile across, at the bottom of which is a lake largely covered with weeds and plant-life. On the eastward, or landward face, the mountain, as already explained, slopes downward with a smooth and grassy incline, and the other three sides have been worn by the waves into cliffs over 1,000 feet in height. On the outermost side the sea has nearly forced its way into the crater itself; and the ocean is now divided from the lake at this point by only a narrow edge, along which it would be possible but

15:Routledge E-5 (1914-1915) 1919
OY2 Easter Islanders OY2

not easy to walk with safety. At some near date, as geological ages reckon, the island will have a magnificent harbour (figs. 100 and 108). Off this part of the coast are three little islets, outlying portions of the original mountain, which have as yet withstood the unceasing blows of the ocean. Their names are Motu Nui, Motu Iti, and Motu Kao-kao, and on them nest the sea-birds which have for unknown centuries played so important a part in the history of the island. On the mainland, immediately opposite these islets, there is on the top of the cliff a deserted stone village; it is known as Orongo, and in it the Islanders awaited the coming of the birds. It consists of nearly fifty dwellings arranged in two rows, both facing the sea, and partly overlapping; the lower row terminates just before the narrowest part of the crater wall is reached. The final houses are built among an outcrop of rocks; they are betwixt two groups of stones, and have in front of them a small natural pavement. The stones nearest the cliff look as if at any moment they might join their brethren in headlong descent to the shore below (fig. 103). Both the upstanding rocks and pavement are covered with carvings; some of them are partly obliterated by time, and can only be seen in a good light, but the ever-recurrent theme is a figure with the body of a man and the head of a bird; portions of the carvings are covered by the houses, and they therefore antedate them.

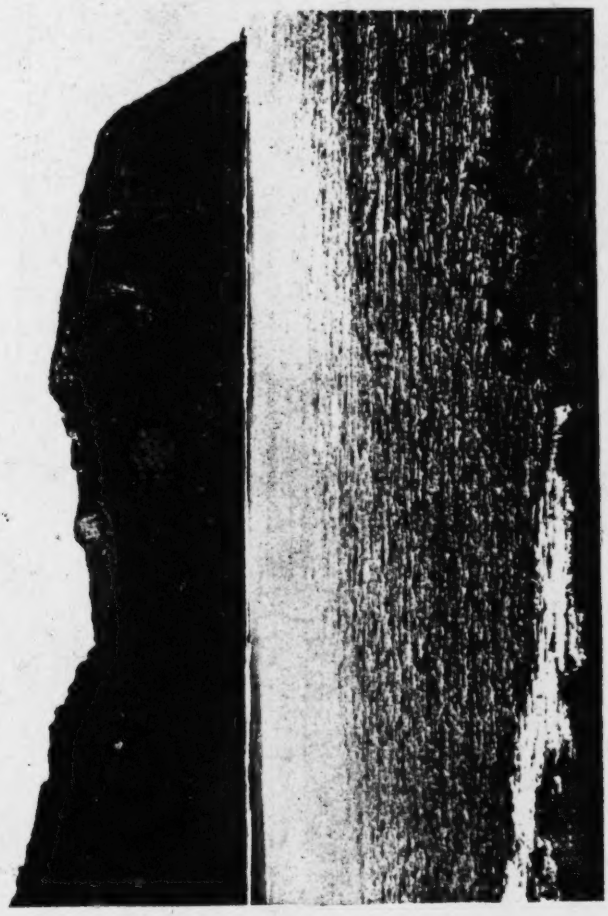
The whole position is marvellous, surpassing the wildest scenes depicted in romance. Immediately at hand are these strange relics of a mysterious past; on one side far beneath is the dark crater lake; on the other, a thousand feet below, swells and breaks the Pacific Ocean, it girdles the islets with a white belt of foam, and extends, in blue unbroken sweep, till it meets the ice-fields of the Antarctic. The all-pervading stillness of the island culminates here in a silence which may be felt, broken only by the cry of the sea-birds as they circle round their lonely habitations.

The stone village formed the scene of some of our earliest work during our first residence at the Manager's house; for some weeks, weather permitting, we rode daily up the mountain, an ascent which took about fifty minutes, and spent the day on the top studying the remains, and picking the brains of our native companions. Some of the houses have been destroyed in order

15:Routledge E-5 (1914-1915) 1919
OY2 Easter Islanders OY2

133

FIG. 108.



RANO KAO FROM MOTU NUI

260]

[facing p. 260]

15:Routledge E-5 (1914-1915) 1919
OY2 Easter Islanders OY2

133

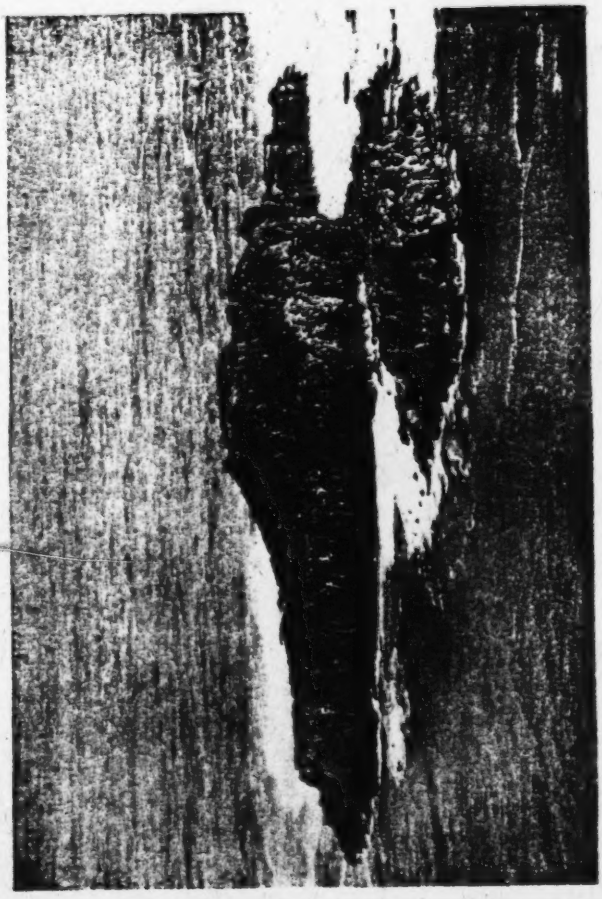


FIG. 109.

MOTU NUI AND MOTU ITI.

[facing p. 261]